DUPLICATE SAMPLE ANALYSIS:

Comments:

For this SDG collocated samples are not identified.

ICP SERIAL DILUTION ANALYSIS:

Comments:

For this SDG the laboratory included Batch QC serial dilution results. No action is taken since the Batch QC sample may not represent the matrix under study.

OVERALL ASSESSMENT:

All QC results reviewed were within specification and no actions or qualifiers were necessary.

TABLE A-2.

TECHNICAL REVIEW ACTION SUMMARY

SDG 10305724

Arsenic

Cadmium

Potassium

Selenium

Phosphorus

If the field is left blank no actions or qualifications were necessary.

TECHNICAL REVIEW REPORT

SDG 10305759

ELEMENTAL PARAMETERS

TECHINCAL REVIEW REPORT

SDG 10305759

ELEMENTAL PARAMETERS

The data evaluation was based on USEPA SW-846 Method 6010B for cadmium, potassium, and phosphorus and 6020 for arsenic and selenium (Methods) and included the following parameters:

- calibration
- blanks
* - ICP interference check sample
- matrix spike analysis
- duplicate sample analysis
* - laboratory control sample analysis
- ICP serial dilution analysis
* - ICPMS internal standard analysis
- detection limits
- overall assessment

* All criteria were met for this parameter.

Table A-3 summarizes the technical review actions that are detailed below.

Data validation, described in SW-846 and the Guidelines, which includes an evaluation of the usability of technically reviewed results with respect to project Data Quality Objectives and site chemistry knowledge, is included in the Data Validation/Usability Report.

CALIBRATION:

Low-level calibration verifications (CRI) providing recoveries not within 90-110% are tabulated below:

CRI DATE/TIME	ELEMENT	RECOVERY (%)
5-21/02:27	cadmium	60.0

Associated samples requiring actions:

CRI ID.	ELEMENT	ASSOCIATED SAMPLES
5-21/02:27	cadmium	ALL SAMPLES

Action:

- For recoveries below the lower limit results <2PQL are flagged as estimated with the potential for low bias (J-).

Comment:

Only calibrations bracketing samples associated with this SDG are evaluated.

BLANKS:

Blanks providing positive results and their associated 5X action levels (AL) are tabulated below:

BLANK ID.	ELEMENT	CONC. (mg/L)	AL (mg/L)
CCB 5-21/04:32	potassium	0.126	0.630
CCB 5-21/05:31	potassium	0.354	1.77
505701	arsenic	0.00029	0.0015

Associated samples with positive results reported below the action level: NONE

Comments:

Only calibration blanks bracketing the samples associated with the SDG were evaluated.

MATRIX SPIKE ANALYSIS:

Comments:

For sample 505157 the native level of potassium exceeded four times the spiking level, therefore, this parameter could not be evaluated.

DUPLICATE SAMPLE ANALYSIS:

Comments:

For this SDG sample 505601 is collocated with sample 505156. For this collocated sample pair all precision limits specified in the QAPP were met.

DETECTION LIMITS:

For this SDG, the laboratory was required to report results positive to their method detection limit (MDL). The MDL (described in 40CFR Part 136, Appendix B and incorporated by reference in SW-846), provides an error band, by definition, of $\pm$ 100 percent. The Estimated Quantitation Limit (EQL), is established at 5-10X the MDL in SW-846.

Action:

- Positive results reported between the MDL and PQL are flagged as estimated (J).

Comments:

The data user is cautioned that these results may not be analytically reproducible or statistically valid.

OVERALL ASSESSMENT:

Results reported <2 PQL for cadmium in all samples are flagged as estimated with the potential for low bias (J-) due to non-compliant CRI recovery.

Positive results reported between the MDL and PQL are flagged as estimated (J) due to uncertainty at the low level.

All additional QC results reviewed were within specification and no further actions or qualifiers were necessary.

TABLE A-3.

TECHNICAL REVIEW ACTION SUMMARY

SDG 10305759

Arsenic	J1
Cadmium	J-1
Potassium	
Selenium	J1

If the field is left blank no actions or qualifications were necessary.

J1	-	Result is flagged as estimated (J) due to uncertainty at the low levels.
J-1	-	Result reported <2PQL is flagged as estimated with the potential for low bias (J-) due to non-compliant CRI recovery.

TECHINCAL REVIEW REPORT

SDG 10312267

ELEMENTAL PARAMETERS

The data evaluation was based on USEPA SW-846 Method 6010B for cadmium, potassium, and phosphorus and 6020 for arsenic and selenium (Methods) and included the following parameters:

- calibration
- blanks
* - ICP interference check sample
- matrix spike analysis
- duplicate sample analysis
* - laboratory control sample analysis
- ICP serial dilution analysis
* - ICPMS internal standard analysis
* - detection limits
- overall assessment

* All criteria were met for this parameter.

Table A-4 summarizes the technical review actions that are detailed below.

Data validation, described in SW-846 and the Guidelines, which includes an evaluation of the usability of technically reviewed results with respect to project Data Quality Objectives and site chemistry knowledge, is included in the Data Validation/Usability Report.

CALIBRATION:

Low-level calibration verifications (CRI) providing recoveries not within 90-110% are tabulated below:

CRI DATE/TIME	ELEMENT	RECOVERY (%)
6-30/15:37	cadmium	89.3
	potassium	87.2

Associated samples requiring actions:

CRI ID.	ELEMENT	ASSOCIATED SAMPLES
6-30/15:37	cadmium	ALL SAMPLES
	potassium	505704

Action:

- For recoveries below the lower limit results <2PQL are flagged as estimated with the potential for low bias (J-).

Comment:

Only calibrations bracketing samples associated with this SDG are evaluated.

BLANKS:

Comments:

Only calibration blanks bracketing the samples associated with the SDG were evaluated.

MATRIX SPIKE ANALYSIS:

Comments:

For sample 505108 the native level of potassium exceeded four times the spiking level, therefore, this parameter could not be evaluated.

DUPLICATE SAMPLE ANALYSIS:

Comments:

For this SDG sample 505604 is collocated with sample 505121. For this collocated sample pair all precision limits specified in the QAPP were met.

OVERALL ASSESSMENT:

Results reported <2 PQL for cadmium in all samples and potassium in sample 505704 are flagged as estimated with the potential for low bias (J-) due to non-compliant CRI recovery.

All additional QC results reviewed were within specification and no further actions or qualifiers were necessary.

TABLE A-4.

TECHNICAL REVIEW ACTION SUMMARY

SDG 10312267

Arsenic	
Cadmium	J-1
Potassium	J-1
Selenium	

If the field is left blank no actions or qualifications were necessary.

J-1 - Result reported <2PQL is flagged as estimated with the potential for low bias (J-) due to non-compliant CRI recovery.

TECHNICAL REVIEW REPORT

SDG 10305190

WET CHEMISTRIES

TECHNICAL REVIEW REPORT

SDG 10305190

WET CHEMISTRIES

The data evaluation was based on the procedures set forth in the Methods and included the following parameters:

* - holding times
* - calibration
- blanks
- matrix spike sample analysis
* - standard reference material analysis
- duplicate sample analysis
- detection limits
- overall assessment

* All criteria were met for this parameter.

Data validation, described in SW-846 and the Guidelines, which includes an evaluation of the usability of technically reviewed results with respect to project Data Quality Objectives and site chemistry knowledge, is included in the Data Validation/Usability Report.

A glossary of data qualifier definitions is presented in Appendix B.

BLANKS:

Blanks reported with positive values and their associated 5X action levels are tabulated below:

BLANK ID.	PARAMETER	CONC. (mg/L)	ACTION LEVEL
MB 1960611	fluoride (ISE)	0.13	0.65
505700	ammonia-N	0.021	0.11
	o-phosphate-P	0.0025	0.013

Associated samples with values reported positive but below the action level:

BLANK ID.	PARAMETER	ASSOCIATED SAMPLES	
MB 1960611	fluoride (ISE)	505178	505600
		505131	
505700	ammonia-N	505128	505127
		505131	

Action:

- Associated positive sample results are flagged as not-detected at the reported value (U).

Comments:

The data user is cautioned that for the field blanks the actions may not apply directly to the indicated samples (e.g. the contamination is in the blank water per-se).

MATRIX SPIKE SAMPLE ANALYSIS:

Samples providing matrix spike (MS)/MS duplicate (MSD) recoveries or precision not within the laboratory default limits when the native level is reported at less than four times the spiking level are tabulated below:

SAMPLE ID.	ANALYTE	MS/MSD RECOVERY (%)
505114	chloride	85/85
	fluoride (IC)	214/213*

Action:

- For both MS and MSD recoveries below the lower limit sample results reported for the analyte are flagged as estimated with the potential for low bias (J-).

Comments:

* - Likely a spiking error. On the basis of professional judgment no action is applied.

The above action is applied to all environmental samples associated with the SDG.

For sample 505172 the native level of sulfate exceeded four times the spiking level, therefore, this parameter could not be evaluated.

DUPLICATE SAMPLE ANALYSIS

1. Samples 505178, 505600, 505131, and 505114 were analyzed for fluoride by IC and ISE Methods and the results for samples 505178 and 505114 were within the precision limits expected for laboratory replicates. For samples 505131 and 505114 the IC result was larger. For these samples only the results from the ISE Method should be used.
2. Field Duplicates.

Comments:

For this SDG sample 505600 is collocated with sample 505178. For this collocated sample pair all precision limits specified in the QAPP were met.

DETECTION LIMITS:

For this SDG, the laboratory was required to report results to their method detection limit (MDL). The MDL (described in 40CFR Part 136, Appendix B and incorporated by reference in SW-846), provides an error band, by definition, of ± 100 percent. The Estimated Quantitation Limit (EQL) is established at 5-10X the MDL in SW-846.

Action:

- Positive values reported between the MDL and PQL are flagged as estimated (J).

Comments:
Any values below the PQL contain inherently increasing error bands as the numbers become smaller. It is essential that the data user considers these statistical impacts on data quality at the low levels.

OVERALL ASSESSMENT:
The Method blank was reported with fluoride (ISE) at a concentration that generated an action level resulting in the flagging of the positive results reported in samples 505178, 505600, and 505131 as not-detected at the reported value (U).

The field blank was reported with ammonia-N present at a concentration that generated an action level resulting in the flagging of the positive results reported for samples 505128, 505127, and 505131 as not-detected at the reported value (U).
Sample 505114 provided MS/MSD recoveries of chloride below the laboratory default limits. Results reported for this parameter in all environmental samples associated with the SDG are flagged as estimated with the potential for low bias (J-).

Samples 505131 and 505114 were analyzed for fluoride by both IC and ISE Methods. Only the results from the ISE Method should be used since the IC result was significantly larger.

Any values reported positive between the MDL and PQL are flagged as estimated (J) due to uncertainty at the low levels.

All additional QC criteria evaluated were within specification and no further actions or flagging were required or deemed necessary.

TECHNICAL REVIEW REPORT

SDG 10305724

WET CHEMISTRIES

TECHNICAL REVIEW REPORT

SDG 10305724

WET CHEMISTRIES

The data evaluation was based on the procedures set forth in the Methods and included the following parameters:

* - holding times
* - calibration
- blanks
- matrix spike sample analysis
* - standard reference material analysis
- duplicate sample analysis
* - detection limits
- overall assessment

* All criteria were met for this parameter.

Data validation, described in SW-846 and the Guidelines, which includes an evaluation of the usability of technically reviewed results with respect to project Data Quality Objectives and site chemistry knowledge, is included in the Data Validation/Usability Report.

A glossary of data qualifier definitions is presented in Appendix B.

MATRIX SPIKE SAMPLE ANALYSIS:

Comments:

For this SDG the laboratory included Batch QC matrix spike results. No action is taken since the Batch QC sample may not represent the matrix under study.

DUPLICATE SAMPLE ANALYSIS:

For this SDG collocated samples are not identified.

OVERALL ASSESSMENT:

All additional QC criteria evaluated were within specification and no further actions or flagging were required or deemed necessary.

TECHNICAL REVIEW REPORT

SDG 10305759

WET CHEMISTRIES

TECHNICAL REVIEW REPORT

SDG 10305759

WET CHEMISTRIES

The data evaluation was based on the procedures set forth in the Methods and included the following parameters:

- holding times
* - calibration
- blanks
- matrix spike sample analysis
* - standard reference material analysis
- duplicate sample analysis
- detection limits
- overall assessment

* All criteria were met for this parameter.

Data validation, described in SW-846 and the Guidelines, which includes an evaluation of the usability of technically reviewed results with respect to project Data Quality Objectives and site chemistry knowledge, is included in the Data Validation/Usability Report.

A glossary of data qualifier definitions is presented in Appendix B.

HOLDING TIMES:

The following samples were analyzed outside the indicated method-specified holding time from sample collection to analysis:

SAMPLE ID.	PARAMETER	HOLDING TIME (DAYS)
ALL SAMPLES	nitrate-N	5-6
	o-phosphate-P	5-6

Action:

- None, see comments.

Comments:

No action is taken since a FMC keeping quality study indicated that these parameters are stable beyond the above-indicated holding times.

BLANKS:

Blanks reported with positive values and their associated 5X action levels are tabulated below:

BLANK ID.	PARAMETER	CONC. (mg/L)	ACTION LEVEL
MB 1968130	fluoride (ISE)	0.14	0.70
505701	o-phosphate-P	0.017	0.085

Associated samples with values reported positive but below the action level:

BLANK ID.	PARAMETER	ASSOCIATED SAMPLES	
MB 1968130	fluoride (ISE)	505115	505155
		505156	505157
		505601	
505701	o-phosphate-P	505183	505158

Action:

- Associated positive sample results are flagged as not-detected at the reported value (U).

Comments:

The data user is cautioned that for the field blanks the actions may not apply directly to the indicated samples (e.g. the contamination is in the blank water per-se).

MATRIX SPIKE SAMPLE ANALYSIS:

Samples providing matrix spike (MS)/MS duplicate (MSD) recoveries or precision not within the laboratory default limits when the native level is reported at less than four times the spiking level are tabulated below:

SAMPLE ID.	ANALYTE	MS/MSD RECOVERY (%)
505157	fluoride (IC)	0/0*
	nitrate-N	/88
	ammonia-N	113/117

Action:

- For both MS and MSD recoveries above the upper limit positive sample results reported for the analyte are flagged as estimated with the potential for high bias (J+).

Comments:

* - Likely due to the substantial interference (*vide infra*). On the basis of professional judgment no action is applied.

The above action is applied to all environmental samples associated with the SDG.

DUPLICATE SAMPLE ANALYSIS

1. Samples 505115, 505123, 505155, 505156, 505157, and 505601 were analyzed for fluoride by IC and ISE Methods and the results for samples 505123 and

505155 were within the precision limits expected for laboratory replicates. For samples 505115, 505156, 505157, and 505601 the IC result was larger. For these samples only the results from the ISE Method should be used.

2. Field Duplicates.

Comments:

For this SDG sample 505601 is collocated with sample 505156. For this collocated sample pair all precision limits specified in the QAPP were met.

DETECTION LIMITS:

For this SDG, the laboratory was required to report results to their method detection limit (MDL). The MDL (described in 40CFR Part 136, Appendix B and incorporated by reference in SW-846), provides an error band, by definition, of ± 100 percent. The Estimated Quantitation Limit (EQL) is established at 5-10X the MDL in SW-846.

Action:

- Positive values reported between the MDL and PQL are flagged as estimated (J).

Comments:

Any values below the PQL contain inherently increasing error bands as the numbers become smaller. It is essential that the data user considers these statistical impacts on data quality at the low levels.

OVERALL ASSESSMENT:

The Method blank was reported with fluoride (ISE) at a concentration that generated an action level resulting in the flagging of the positive results reported in samples 505115, 505155, 505156, 505157, and 505601 as not-detected at the reported value (U).

The field blank was reported with o-phosphate-P present at a concentration that generated an action level resulting in the flagging of the positive results reported for samples 505183 and 505158 as not-detected at the reported value (U).

Sample 505157 provided MS/MSD recoveries of ammonia-N above the laboratory default limit. Results reported positive for this parameter in all environmental samples associated with the SDG are flagged as estimated with the potential for high bias (J+).

Samples 505115, 505156, 505157, and 505601 were analyzed for fluoride by both IC and ISE Methods. Only the results from the ISE Method should be used since the IC result was significantly larger.

Any values reported positive between the MDL and PQL are flagged as estimated (J) due to uncertainty at the low levels.

All additional QC criteria evaluated were within specification and no further actions or flagging were required or deemed necessary.

TECHNICAL REVIEW REPORT

SDG 10312267

WET CHEMISTRIES

The data evaluation was based on the procedures set forth in the Methods and included the following parameters:

* - holding times
* - calibration
- blanks
- matrix spike sample analysis
* - standard reference material analysis
- duplicate sample analysis
- detection limits
- overall assessment

* All criteria were met for this parameter.

Data validation, described in SW-846 and the Guidelines, which includes an evaluation of the usability of technically reviewed results with respect to project Data Quality Objectives and site chemistry knowledge, is included in the Data Validation/Usability Report.

A glossary of data qualifier definitions is presented in Appendix B.

BLANKS:

Blanks reported with positive values and their associated 5X action levels are tabulated below:

BLANK ID.	PARAMETER	CONC. (mg/L)	ACTION LEVEL

505704 fluoride 0.0070 0.035
Associated samples with values reported positive but below the action level: NONE

MATRIX SPIKE SAMPLE ANALYSIS:

Comments:

For chloride, nitrate-N, and sulfate the native level exceeded four times the spiking level, therefore, this parameter could not be evaluated.

DUPLICATE SAMPLE ANALYSIS

Field Duplicates:

For this SDG sample 505604 is collocated with sample 505121. For this collocated sample pair all precision limits specified in the QAPP were met.

DETECTION LIMITS:

For this SDG, the laboratory was required to report results to their method detection limit (MDL). The MDL (described in 40CFR Part 136, Appendix B and incorporated by reference in SW-846), provides an error band, by definition, of ± 100 percent. The Estimated Quantitation Limit (EQL) is established at 5-10X the MDL in SW-846.

Action:

- Positive values reported between the MDL and PQL are flagged as estimated (J).

Comments:

Any values below the PQL contain inherently increasing error bands as the numbers become smaller. It is essential that the data user considers these statistical impacts on data quality at the low levels.

OVERALL ASSESSMENT:

Any values reported positive between the MDL and PQL are flagged as estimated (J) due to uncertainty at the low levels.

All additional QC criteria evaluated were within specification and no further actions or flagging were required or deemed necessary.

APPENDIX B

DEFINITION OF DATA QUALIFIERS

GLOSSARY OF DATA QUALIFIERS

J	-	The associated value is an estimated quantity.
R	-	The data are unusable.
U	-	The parameter is not detected at the reported value.
B	-	The value is above the MDL or IDL but below the RL, or CRDL

APPENDIX C

GLOSSARY OF ACRONYMS

GLOSSARY OF ACRONYMS

SDG	-	Sample Delivery Group
USEPA	-	Unites States Environmental Protection Agency
DQO	-	Data Quality Objectives
QAPjP	-	Quality Assurance Project Plan
RPD	-	Relative Percent Difference
CRDL	-	Contract Required Detection Limit
RL	-	Reporting Limit
IDL	-	Instrument Detection Limit
MDL	-	Method Detection Limit
CLP	-	Contract Laboratory Program
ICP	-	Ion Coupled Plasma
MS	-	Matrix Spike
MSD	-	Matrix Spike Duplicate

DATA PACKAGE REPORT
SAMPLE DELIVERY GROUP
RCRA SDG
10305190

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505114ABC **Lab ID: 10305190020** Collected: 05/06/15 13:30 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:53	7440-43-9	
Potassium	**26.6**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:53	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.12**	mg/L	0.00050	0.00011	1	05/13/15 21:04	05/19/15 11:23	7440-38-2	
Selenium	**0.0022**	mg/L	0.00050	0.00020	1	05/13/15 21:04	05/19/15 11:23	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**1.0**	mg/L	1.0	0.051	1		05/09/15 11:42	16984-48-8	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**132**	mg/L	6.0	3.0	5		05/08/15 00:46	16887-00-6	M1
Fluoride	~~1.5~~	mg/L	0.050	0.0036	1		05/07/15 17:12	16984-48-8	M1
Nitrate as N	ND	mg/L	0.10	0.050	1		05/07/15 17:12	14797-55-8	
Sulfate	**99.5**	mg/L	6.0	3.0	5		05/08/15 00:46	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**1.9**	mg/L	0.040	0.020	1		05/19/15 12:50	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**1.5**	mg/L	0.10	0.035	20		05/07/15 15:06		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505124 **Lab ID: 10305190018** Collected: 05/06/15 09:50 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	**0.00066** J	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:43	7440-43-9	
Potassium	**12.5**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:43	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.012**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:56	7440-38-2	
Selenium	**0.0047** J+	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:56	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**174**	mg/L J-	6.0	3.0	5		05/08/15 01:34	16887-00-6	
Fluoride	**0.78**	mg/L	0.050	0.0036	1		05/07/15 18:13	16984-48-8	
Nitrate as N	**3.1**	mg/L	0.10	0.050	1		05/07/15 18:13	14797-55-8	
Sulfate	**89.9**	mg/L	1.2	0.60	1		05/07/15 18:13	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:48	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.088**	mg/L	0.0050	0.0017	1		05/07/15 14:58		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505126 **Lab ID: 10305190017** Collected: 05/06/15 09:05 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:38	7440-43-9	
Potassium	**9.3**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0077**	mg/L	0.0010	0.00023	2	05/13/15 21:04	05/19/15 10:51	7440-38-2	
Selenium	**0.0024**	mg/L	0.0010	0.00040	2	05/13/15 21:04	05/19/15 10:51	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**95.3**	mg/L	1.2	0.60	1		05/07/15 17:57	16887-00-6	J-
Fluoride	**0.94**	mg/L	0.050	0.0036	1		05/07/15 17:57	16984-48-8	
Nitrate as N	**2.2**	mg/L	0.10	0.050	1		05/07/15 17:57	14797-55-8	
Sulfate	**86.5**	mg/L	1.2	0.60	1		05/07/15 17:57	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:47	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.067**	mg/L	0.0050	0.0017	1		05/07/15 14:57		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505127 **Lab ID: 10305190016** Collected: 05/06/15 08:30 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:24	7440-43-9	
Potassium	**14.1**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:24	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0077**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:47	7440-38-2	
Selenium	**0.0069**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:47	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**298**	mg/L	6.0	3.0	5		05/08/15 00:28	16887-00-6	
Fluoride	**0.56**	mg/L	0.050	0.0036	1		05/07/15 16:57	16984-48-8	
Nitrate as N	**5.6**	mg/L	0.10	0.050	1		05/07/15 16:57	14797-55-8	
Sulfate	**194**	mg/L	6.0	3.0	5		05/08/15 00:28	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.051** U	mg/L	0.040	0.020	1		05/19/15 12:47	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.080**	mg/L	0.0050	0.0017	1		05/07/15 14:56		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505128 **Lab ID: 10305190015** Collected: 05/06/15 07:55 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:17	7440-43-9	
Potassium	**16.7**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:17	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.019**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:42	7440-38-2	
Selenium	**0.0051**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:42	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**281**	mg/L J-	6.0	3.0	5		05/08/15 00:10	16887-00-6	
Fluoride	**0.45**	mg/L	0.050	0.0036	1		05/07/15 16:42	16984-48-8	
Nitrate as N	**6.9**	mg/L	0.10	0.050	1		05/07/15 16:42	14797-55-8	
Sulfate	**120**	mg/L	6.0	3.0	5		05/08/15 00:10	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.026** U	mg/L	0.040	0.020	1		05/19/15 12:45	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.16**	mg/L	0.0050	0.0017	1		05/07/15 14:55		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505131 **Lab ID: 10305190019** Collected: 05/06/15 10:40 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	**0.00090J**	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:48	7440-43-9	
Potassium	**13.6**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:48	7440-09-7	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium, Dissolved	**0.0025J**	mg/L	0.0030	0.00065	1	05/20/15 10:32	05/20/15 11:29	7440-43-9	
Potassium, Dissolved	**13.7**	mg/L	2.5	0.13	1	05/20/15 10:32	05/20/15 11:29	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.049**	mg/L	0.00050	0.00011	1	05/13/15 21:04	05/19/15 11:19	7440-38-2	
Selenium	**0.00086J**	mg/L	0.00050	0.00020	1	05/13/15 21:04	05/19/15 11:19	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic, Dissolved	**0.050**	mg/L	0.00050	0.00011	1	05/17/15 21:50	05/20/15 12:14	7440-38-2	
Selenium, Dissolved	**0.00083J**	mg/L	0.00050	0.00020	1	05/17/15 21:50	05/20/15 12:14	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.13J**	mg/L	1.0	0.051	1		05/09/15 11:36	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**196**	mg/L	6.0	3.0	5		05/08/15 01:52	16887-00-6	
Fluoride	**74.8**	mg/L	2.5	0.18	50		05/08/15 10:24	16984-48-8	
Nitrate as N	**0.056J**	mg/L	0.10	0.050	1		05/07/15 18:28	14797-55-8	
Sulfate	**167**	mg/L	6.0	3.0	5		05/08/15 01:52	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.037J**	mg/L	0.040	0.020	1		05/19/15 12:49	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**6.1**	mg/L	0.25	0.087	50		05/07/15 15:05		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505147 **Lab ID: 10305190012** Collected: 05/05/15 18:05 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:03	7440-43-9	
Potassium	**12.1**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:03	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0046**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:28	7440-38-2	
Selenium	**0.0041** J+	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:28	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**153**	mg/L J-	6.0	3.0	5		05/07/15 22:47	16887-00-6	
Fluoride	**0.70**	mg/L	0.050	0.0036	1		05/07/15 15:09	16984-48-8	
Nitrate as N	**4.4**	mg/L	0.10	0.050	1		05/07/15 15:09	14797-55-8	
Sulfate	**66.5**	mg/L	1.2	0.60	1		05/07/15 15:09	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:41	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.033**	mg/L	0.0050	0.0017	1		05/07/15 14:53		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505148 **Lab ID: 10305190013** Collected: 05/05/15 18:45 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:08	7440-43-9	
Potassium	**13.4**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:08	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0072**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:33	7440-38-2	
Selenium	**0.0057**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:33	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**163**	mg/L	6.0	3.0	5		05/07/15 23:05	16887-00-6	
Fluoride	**0.76**	mg/L	0.050	0.0036	1		05/07/15 15:24	16984-48-8	
Nitrate as N	**3.6**	mg/L	0.10	0.050	1		05/07/15 15:24	14797-55-8	
Sulfate	**89.8**	mg/L	1.2	0.60	1		05/07/15 15:24	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:42	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.062**	mg/L	0.0050	0.0017	1		05/07/15 14:53		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505149 **Lab ID: 10305190014** Collected: 05/05/15 19:25 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	**0.000750**	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:12	7440-43-9	
Potassium	**11.7**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:12	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0068**	mg/L	0.0010	0.00023	2	05/13/15 21:04	05/19/15 10:37	7440-38-2	
Selenium	**0.0020**	mg/L	0.0010	0.00040	2	05/13/15 21:04	05/19/15 10:37	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**114**	mg/L	6.0	3.0	5		05/07/15 23:22	16887-00-6	
Fluoride	**1.0**	mg/L	0.050	0.0036	1		05/07/15 15:39	16984-48-8	
Nitrate as N	**2.0**	mg/L	0.10	0.050	1		05/07/15 15:39	14797-55-8	
Sulfate	**59.4**	mg/L	1.2	0.60	1		05/07/15 15:39	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:43	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.064**	mg/L	0.0050	0.0017	1		05/07/15 14:54		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505154 **Lab ID: 10305190003** Collected: 05/05/15 10:55 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 14:57	7440-43-9	
Potassium	**14.4** J	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 14:57	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0043**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:36	7440-38-2	
Selenium	**0.0032**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:36	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**190**	mg/L J	6.0	3.0	5		05/06/15 19:26	16887-00-6	
Fluoride	**1.0**	mg/L	0.050	0.0036	1		05/06/15 15:46	16984-48-8	
Nitrate as N	**2.8**	mg/L	0.10	0.050	1		05/06/15 15:46	14797-55-8	
Sulfate	**55.7**	mg/L	1.2	0.60	1		05/06/15 15:46	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:09	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.025**	mg/L	0.0050	0.0017	1		05/06/15 13:45		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505171 **Lab ID: 10305190007** Collected: 05/05/15 13:25 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:28	7440-43-9	
Potassium	**22.6** J	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:28	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.018**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:08	7440-38-2	
Selenium	**0.0027**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:08	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**193**	mg/L J-	6.0	3.0	5		05/06/15 21:40	16887-00-6	
Fluoride	**0.54**	mg/L	0.050	0.0036	1		05/06/15 16:47	16984-48-8	
Nitrate as N	**5.4**	mg/L	0.10	0.050	1		05/06/15 16:47	14797-55-8	
Sulfate	**88.9**	mg/L	1.2	0.60	1		05/06/15 16:47	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:15	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.10**	mg/L	0.0050	0.0017	1		05/06/15 13:50		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505172 **Lab ID: 10305190010** Collected: 05/05/15 15:50 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:41	7440-43-9	
Potassium	**25.7** J-	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.021**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:21	7440-38-2	
Selenium	**0.0037**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:21	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**119** J-	mg/L	12.0	6.0	10		05/06/15 21:58	16887-00-6	
Fluoride	**0.59**	mg/L	0.050	0.0036	1		05/06/15 18:02	16984-48-8	
Nitrate as N	**8.4**	mg/L	1.0	0.50	10		05/06/15 21:58	14797-55-8	
Sulfate	**73.9**	mg/L	1.2	0.60	1		05/06/15 18:02	14808-79-8	M1
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:18	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.30**	mg/L	0.025	0.0087	5		05/06/15 14:01		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505173 **Lab ID: 10305190006** Collected: 05/05/15 12:35 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:23	7440-43-9	
Potassium	**14.0** J	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:23	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0032**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:03	7440-38-2	
Selenium	**0.0046**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:03	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**218**	mg/L J-	6.0	3.0	5		05/06/15 21:23	16887-00-6	
Fluoride	**0.84**	mg/L	0.050	0.0036	1		05/06/15 16:32	16984-48-8	
Nitrate as N	**3.5**	mg/L	0.10	0.050	1		05/06/15 16:32	14797-55-8	
Sulfate	**66.7**	mg/L	1.2	0.60	1		05/06/15 16:32	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:14	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.022**	mg/L	0.0050	0.0017	1		05/06/15 13:47		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505174 **Lab ID: 10305190001** Collected: 05/05/15 09:30 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 14:26	7440-43-9	
Potassium	**12.8**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 14:26	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0035**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:08	7440-38-2	
Selenium	**0.0049**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:08	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**190**	mg/L	6.0	3.0	5		05/06/15 18:50	16887-00-6	
Fluoride	**0.77**	mg/L	0.050	0.0036	1		05/06/15 15:16	16984-48-8	
Nitrate as N	**4.7**	mg/L	0.10	0.050	1		05/06/15 15:16	14797-55-8	
Sulfate	**93.8**	mg/L	1.2	0.60	1		05/06/15 15:16	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:07	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.028**	mg/L	0.0050	0.0017	1		05/06/15 13:41		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505177 **Lab ID: 10305190002** Collected: 05/05/15 10:15 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 14:52	7440-43-9	
Potassium	**13.3** J	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 14:52	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0042**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:13	7440-38-2	
Selenium	**0.0042**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:13	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**169**	mg/L J-	6.0	3.0	5		05/06/15 19:08	16887-00-6	
Fluoride	**0.72**	mg/L	0.050	0.0036	1		05/06/15 15:31	16984-48-8	
Nitrate as N	**4.2**	mg/L	0.10	0.050	1		05/06/15 15:31	14797-55-8	
Sulfate	**71.6**	mg/L	1.2	0.60	1		05/06/15 15:31	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:09	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.028**	mg/L	0.0050	0.0017	1		05/06/15 13:44		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505178 **Lab ID: 10305190004** Collected: 05/05/15 11:35 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:10	7440-43-9	
Potassium	**24.3** J	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0088**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:54	7440-38-2	
Selenium	**0.0060**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:54	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.290** U	mg/L	1.0	0.051	1		05/09/15 11:27	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**565**	mg/L J	12.0	6.0	10		05/06/15 19:43	16887-00-6	
Fluoride	**0.30**	mg/L	0.050	0.0036	1		05/06/15 16:01	16984-48-8	
Nitrate as N	**5.7**	mg/L	0.10	0.050	1		05/06/15 16:01	14797-55-8	
Sulfate	**374**	mg/L	12.0	6.0	10		05/06/15 19:43	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:11	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.039**	mg/L	0.0050	0.0017	1		05/06/15 13:46		

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505180 **Lab ID: 10305190011** Collected: 05/05/15 17:15 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 17:56	7440-43-9	
Potassium	**32.8**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 17:56	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.044**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:24	7440-38-2	
Selenium	**0.0044**	mg/L J+	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:24	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**130**	mg/L J+	12.0	6.0	10		05/07/15 15:56	16887-00-6	
Fluoride	**0.48**	mg/L	0.050	0.0036	1		05/07/15 14:54	16984-48-8	
Nitrate as N	**42.6**	mg/L	1.0	0.50	10		05/07/15 15:56	14797-55-8	
Sulfate	**129**	mg/L	12.0	6.0	10		05/07/15 15:56	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:38	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.44**	mg/L	0.025	0.0087	5		05/07/15 15:04		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505600 **Lab ID: 10305190005** Collected: 05/05/15 11:55 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:16	7440-43-9	
Potassium	**22.9** J	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:16	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0088**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:59	7440-38-2	
Selenium	**0.0058**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:59	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.280** U	mg/L	1.0	0.051	1		05/09/15 11:32	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**581**	mg/L J	12.0	6.0	10		05/06/15 20:18	16887-00-6	
Fluoride	**0.30**	mg/L	0.050	0.0036	1		05/06/15 16:16	16984-48-8	
Nitrate as N	**5.7**	mg/L	0.10	0.050	1		05/06/15 16:16	14797-55-8	
Sulfate	**388**	mg/L	12.0	6.0	10		05/06/15 20:18	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:13	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.039**	mg/L	0.0050	0.0017	1		05/06/15 13:47		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505700 **Lab ID: 10305190009** Collected: 05/05/15 15:20 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:37	7440-43-9	
Potassium	ND	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:37	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.00021**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:17	7440-38-2	J
Selenium	ND	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:17	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		05/06/15 17:47	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/06/15 17:47	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/06/15 17:47	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		05/06/15 17:47	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.021**	mg/L	0.040	0.020	1		05/19/15 12:16	7664-41-7	J
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.0025**	mg/L	0.0050	0.0017	1		05/06/15 13:52		J

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505CDI **Lab ID: 10305190008** Collected: 05/05/15 13:50 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:32	7440-43-9	
Potassium	ND	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:32	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	ND	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:12	7440-38-2	
Selenium	ND	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:12	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		05/06/15 17:02	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/06/15 17:02	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/06/15 17:02	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		05/06/15 17:02	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:16	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	ND	mg/L	0.0050	0.0017	1		05/06/15 13:51		

TECHNICAL REVIEW ACTION SUMMARY

TECHNICAL REVIEW ACTION SUMMARY
SDG 10305190

Arsenic	J1
Cadmium	J1, J+1
Potassium	J2
Selenium	J+1

If the field is left blank no actions or qualifications were necessary.

J1	-	Positive result is flagged as estimated (J) due to uncertainty at the low level.
J2	-	Result is flagged as estimated (J) due to non-compliant serial dilution reproducibility.
J+1	-	Positive result reported <2PQL is flagged as estimated with the potential for high bias (J+) due to non-compliant CRI recovery.

SAMPLE ID CODES

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SAMPLE SUMMARY

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10305190001	505174	Water	05/05/15 09:30	05/06/15 10:00
10305190002	505177	Water	05/05/15 10:15	05/06/15 10:00
10305190003	505154	Water	05/05/15 10:55	05/06/15 10:00
10305190004	505178	Water	05/05/15 11:35	05/06/15 10:00
10305190005	505600	Water	05/05/15 11:55	05/06/15 10:00
10305190006	505173	Water	05/05/15 12:35	05/06/15 10:00
10305190007	505171	Water	05/05/15 13:25	05/06/15 10:00
10305190008	505CDI	Water	05/05/15 13:50	05/06/15 10:00
10305190009	505700	Water	05/05/15 15:20	05/06/15 10:00
10305190010	505172	Water	05/05/15 15:50	05/06/15 10:00
10305190011	505180	Water	05/05/15 17:15	05/07/15 10:15
10305190012	505147	Water	05/05/15 18:05	05/07/15 10:15
10305190013	505148	Water	05/05/15 18:45	05/07/15 10:15
10305190014	505149	Water	05/05/15 19:25	05/07/15 10:15
10305190015	505128	Water	05/06/15 07:55	05/07/15 10:15
10305190016	505127	Water	05/06/15 08:30	05/07/15 10:15
10305190017	505126	Water	05/06/15 09:05	05/07/15 10:15
10305190018	505124	Water	05/06/15 09:50	05/07/15 10:15
10305190019	505131	Water	05/06/15 10:40	05/07/15 10:15
10305190020	505114ABC	Water	05/06/15 13:30	05/07/15 10:15

LABORATORY CASE NARRATIVE

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: EPA 6010
Description: 6010 MET ICP
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: EPA 6010
Description: 6010 MET ICP, Dissolved
Client: FMC
Date: May 20, 2015

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: EPA 6020
Description: 6020 MET ICPMS
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: EPA 6020
Description: 6020 MET ICPMS, Dissolved
Client: FMC
Date: May 20, 2015

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: SM 4500F/C
Description: SM4500F-C Fluoride
Client: FMC
Date: May 20, 2015

General Information:
4 samples were analyzed for SM 4500F/C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: WET/41683

B: Analyte was detected in the associated method blank.
- BLANK for HBN 353704 [WET/4168 (Lab ID: 1960611)
  - Fluoride

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22728

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305190010

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1957263)
  - Sulfate
- MSD (Lab ID: 1957264)
  - Sulfate

QC Batch: WETA/22749

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10304479002,10305190020

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1958344)
  - Chloride
  - Fluoride
- MSD (Lab ID: 1958345)
  - Chloride
  - Fluoride
- MSD (Lab ID: 1958347)
  - Nitrate as N

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: SM 4500-P E
Description: Phosphate, Ortho Low Level
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY

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SHORT HOLD
5/6/15 BP

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305190

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	FMC	Report To:	Ericka Vallance, Hydrometrics	Attention:	Brian McGinnis
Address:	PO BOX 4111	Copy To:	Rob Hartman, MWH	Company Name:	FMC
	POCATELLO, ID 83202		Bruce Wallin, ECCI	Address:	PO BOX 4111 POCATELLO ID 83202
Email To:	brian.mcginnis@fmc.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	FMC	Pace Project Manager:	Kabor Xiong
Requested Due Date/TAT:		Project Number:	RCRA-CERCLA-CALCINER	Pace Profile #:	

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505174	WT	G	--	--	5/5/15	0930		3	1	1	1							X	X	X			X	X		Fed Ex Air Bill # 001
2	505177	WT	G	--	--		1015		3																		805816988475 002
3	505154	WT	G	--	--		1055		3																		003
4	505178	WT	G	--	--		1135		2														X				004
5	505600	WT	G	--	--		1155		2														X				005
6	505173	WT	G	--	--		1235		1																		006
7	505171	WT	G	--	--		1325		3																		007
8	505CDI	WT	G	--	--		1350		3																		008
9	505700	WT	G	--	--		1520		3																		009
10	505172	WT	G	--	--		1550		3																		010
11	505	WT	G	--	--																						
12	505	WT	G	--	--																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**300.0- Cl, SO4, Nitrate, F	Walter Crane / Hydrometrics	5/5/15	16:30	[signature] FEDEX	5/6/15	1000	4.9	X	X	X
6010: Cadmium, Potassium; 6020: Arsenic, Selenium										
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Walter Crane		
SIGNATURE of SAMPLER:	Walter Crane	DATE Signed (MM/DD/YY):	5/5/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

1 of 4

Page 52 of 55

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt Client Name: FMC Project #: WO#: 10305190

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 7088 1698 8475

10305190

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: Temp Blank? ☑ Yes ☐ No

Thermometer Used: ☑ B88A9130516413 ☐ B88A912167504 ☐ B88A0143310098 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 4.6 Cooler Temp Corrected (°C): 4.9 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: +0.3 Date and Initials of Person Examining Contents: 5/6/15 BD

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes ☑ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☑ N/A	13. ½ ☑ HNO_3 ½ ☑ H_2SO_4 ☐ NaOH ☐ HCl Sample # 01-10 Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Kayla Yung Date: May-1st 2015

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical™ www.pacelabs.com

SHORT HOLD

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305190

S/7/15 BD

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	FMC	Report To:	Ericka Vallance, Hydrometrics	Attention:	Brian McGinnis
Address:	PO BOX 4111	Copy To:	Rob Hartman, MWH	Company Name:	FMC
	POCATELLO, ID 83202		Bruce Wallin, ECCI	Address:	PO BOX 4111 POCATELLO ID 83202
Email To:	brian.mcginnis@fmc.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	FMC	Pace Project Manager:	Kabor Xiong
Requested Due Date/TAT:		Project Number:	RCRA-CERCLA-CALCINER	Pace Profile #:	

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Dissolved Metals*	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505180	WT	G	–	–	5/5/15	1715		3	1	1	1							X	X	X			X	X		Fed Ex Air Bill # 011
2	505147	WT	G	–	–		1805																				805816988486 012
3	505148	WT	G	–	–		1845																				013
4	505149	WT	G	–	–		1925																				014
5	505128	WT	G	–	–	5/6/15	0755																				015
6	505127	WT	G	–	–		0830																				016
7	505126	WT	G	–	–		0905																				017
8	505124	WT	G	–	–		0950																				018
9	505131	WT	G	–	–		1040		5	2	1	2										X			X		019 End of 1st RCRA SDG
10	505114A	WT	G	–	–		1330		5	3		1										X					020
11	505114B	WT	G	–	–		1330		4	2												X					021 2-liter for lab split
12	505114C	WT	G	–	–		1330		4	2												X					022

End of 1st RCRA SDG

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**300.0- Cl, SO4, Nitrate, F	Walter Crane / Hydrometrics	5/6/15	16:20	[signature] / pace	5/7/15	0:15	5.1	X	Y	Y
6010: Cadmium, Potassium; 6020: Arsenic, Selenium										
Total Phos sub to Pace-VM by 6010 only on wells 106, 121, 122 & 123										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crane

SIGNATURE of SAMPLER: Walter Crane DATE Signed (MM/DD/YY): 05/06/15

* Dissolved metals were field filtered

**Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** FMC **Project #:** WO#: 10305190

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 8058 1698 8486

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: Temp Blank? ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 4.8 Cooler Temp Corrected (°C): 5.1 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: +0.3 Date and Initials of Person Examining Contents: 5/7/15 BO

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☑ Yes	☐ No	☐ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes	☐ No	☐ N/A	13. ½ ☑ HNO_3 ½ ☑ H_2SO_4 ☐ NaOH ☐ HCl Sample # 01-12
	☑ Yes	☐ No	☐ N/A	
	☐ Yes	☐ No	☑ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (If purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Kaly Young Date: May 7 2015

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

DATA PACKAGE REPORT
SAMPLE DELIVERY GROUP
RCRA SDG
10305724

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305724

Sample: 505BTS **Lab ID: 10305724001** Collected: 05/07/15 17:05 Received: 05/09/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/14/15 09:16	05/14/15 12:36	7440-43-9	
Potassium	**5.9**	mg/L	2.5	0.13	1	05/14/15 09:16	05/14/15 12:36	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0044**	mg/L	0.00050	0.00011	1	05/13/15 21:04	05/19/15 12:23	7440-38-2	
Selenium	**0.0010**	mg/L	0.00050	0.00020	1	05/13/15 21:04	05/19/15 12:23	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**30.2**	mg/L	1.2	0.60	1		05/09/15 16:16	16887-00-6	
Fluoride	**0.53**	mg/L	0.050	0.0036	1		05/09/15 16:16	16984-48-8	
Nitrate as N	**2.8**	mg/L	0.10	0.050	1		05/09/15 16:16	14797-55-8	
Sulfate	**59.9**	mg/L	1.2	0.60	1		05/14/15 16:14	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:25	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.73**	mg/L	0.050	0.017	10		05/09/15 13:29		M6

REPORT OF LABORATORY ANALYSIS

TECHNICAL REVIEW ACTION SUMMARY

TECHNICAL REVIEW ACTION SUMMARY
SDG 10305724

Arsenic

Cadmium

Potassium

Selenium

Phosphorus

If the field is left blank no actions or qualifications were necessary.

SAMPLE ID CODES

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

SAMPLE SUMMARY

Project: FMC RCRA
Pace Project No.: 10305724

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10305724001	505BTS	Water	05/07/15 17:05	05/09/15 09:05

LABORATORY CASE NARRATIVE

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: EPA 6010
Description: 6010 MET ICP
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: EPA 6020
Description: 6020 MET ICPMS
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22770

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305723001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1960678)
  - Fluoride
- MSD (Lab ID: 1960679)
  - Fluoride

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1960678)
  - Chloride
  - Nitrate as N
  - Sulfate
- MSD (Lab ID: 1960679)
  - Chloride
  - Nitrate as N
  - Sulfate

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22961

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10306104001,10306165002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1971723)
  - Nitrogen, Ammonia

Additional Comments:

Analyte Comments:

QC Batch: WETA/22961

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1971723)
  - Nitrogen, Ammonia
- MSD (Lab ID: 1971724)
  - Nitrogen, Ammonia

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: SM 4500-P E
Description: Phosphate, Ortho Low Level
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22771

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305629001,10305724001

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1960682)
  - Orthophosphate as P
- MSD (Lab ID: 1960683)
  - Orthophosphate as P

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

SHORT HOLD

10305724

Page: / of

Section A
Required Client Information:

Company:	FMC
Address:	PO BOX 4111
	POCATELLO, ID 83202
Email To:	brian.mcginnis@fmc.com
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	Ericka Vallance, Hydrometrics
Copy To:	Rob Hartman, MWH
	Bruce Wallin, ECCI
Purchase Order No.:	
Project Name:	FMC
Project Number:	RCRA/CERCLA-CALCINER

Section C
Invoice Information:

Attention:	Brian McGinnis
Company Name:	FMC
Address:	PO BOX 4111 POCATELLO ID 83202
Pace Quote Reference:	
Pace Project Manager:	Kabor Xiong
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505 BTS	WT	G	--	--	5/7/15	1705		3	1		1						X	X	X			X	X		
2	505	WT	G	--	--																					Fed Ex Air Bill #
3	505	WT	G	--	--																					805816988410
4	505	WT	G	--	--																					
5	505	WT	G	--	--																					
6	505	WT	G	--	--																					
7	505	WT	G	--	--																					
8	505	WT	G	--	--																					
9	505	WT	G	--	--																					
10	505	WT	G	--	--																					
11	505	WT	G	--	--																					
12	505	WT	G	--	--																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**300.0- Cl, SO4, Nitrate, F	Walter Crane / Hydrometrics	5/8/15	1325	[signature] Pace	5/9/15	9:05	23	Y	Y	Y
6010: Cadmium, Potassium; 6020: Arsenic, Selenium										
Total Phos sub to Pace-VM by 6010 only on wells 106, 121, 122 & 123										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crane

SIGNATURE of SAMPLER: Walter Crane DATE Signed (MM/DD/YY): 05/08/15

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: FMC

Project #: WO# : 10305724

10305724

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 8067 3847 1614

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other: **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 2.0 **Cooler Temp Corrected (°C):** 2.3 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.3 **Date and Initials of Person Examining Contents:** RH 5/7/15

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☑ Yes	☐ No	☐ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: D Date: 05/11/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

DATA PACKAGE REPORT
SAMPLE DELIVERY GROUP
RCRA SDG
10305759

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505104 **Lab ID: 10305759017** Collected: 05/07/15 14:20 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 05:15	7440-43-9	
Potassium	**209**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 05:15	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.036**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:45	7440-38-2	
Selenium	**0.0035**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:45	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**115**	mg/L	6.0	3.0	5		05/12/15 00:16	16887-00-6	
Fluoride	**3.1**	mg/L	0.25	0.018	5		05/12/15 00:16	16984-48-8	
Nitrate as N	**21.5**	mg/L	0.50	0.25	5		05/12/15 00:16	14797-55-8	
Sulfate	**138**	mg/L	6.0	3.0	5		05/12/15 00:16	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**3.3** J+	mg/L	0.080	0.040	2		05/21/15 13:51	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**1.1**	mg/L	0.050	0.017	10		05/12/15 11:31		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505113 **Lab ID: 10305759002** Collected: 05/06/15 15:35 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 02:54	7440-43-9	
Potassium	**17.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 02:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.027**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:29	7440-38-2	
Selenium	**0.0037**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:29	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**117**	mg/L	6.0	3.0	5		05/11/15 23:05	16887-00-6	
Fluoride	**0.43**	mg/L	0.050	0.0036	1		05/11/15 16:42	16984-48-8	
Nitrate as N	**8.2**	mg/L	0.50	0.25	5		05/11/15 23:05	14797-55-8	
Sulfate	**87.0**	mg/L	1.2	0.60	1		05/11/15 16:42	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:35	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.22**	mg/L	0.010	0.0035	2		05/12/15 11:21		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505115 **Lab ID: 10305759001** Collected: 05/06/15 14:55 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND U	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 02:47	7440-43-9	
Potassium	**14.0**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 02:47	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.24**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:26	7440-38-2	
Selenium	**0.0041**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:26	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.18** U	mg/L	1.0	0.051	1		05/17/15 13:06	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**141**	mg/L	12.0	6.0	10		05/11/15 22:48	16887-00-6	
Fluoride	~~1.0~~	mg/L	0.050	0.0036	1		05/11/15 16:12	16984-48-8	
Nitrate as N	**63.6**	mg/L	1.0	0.50	10		05/11/15 22:48	14797-55-8	
Sulfate	**337**	mg/L	12.0	6.0	10		05/11/15 22:48	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:34	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**2.7**	mg/L	0.10	0.035	20		05/12/15 11:21		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505122 **Lab ID: 10305759009** Collected: 05/07/15 11:05 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Phosphorus	**10200**	ug/L	250	12.9	1	05/14/15 15:58	05/19/15 10:24	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:47	7440-43-9	
Potassium	**131**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:47	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.051**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:55	7440-38-2	
Selenium	**0.0094**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:55	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**301**	mg/L	6.0	3.0	5		05/11/15 23:58	16887-00-6	
Fluoride	**0.060**	mg/L	0.050	0.0036	1		05/11/15 19:14	16984-48-8	
Nitrate as N	**18.6**	mg/L	0.50	0.25	5		05/11/15 23:58	14797-55-8	
Sulfate	**333**	mg/L	6.0	3.0	5		05/11/15 23:58	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:43	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**7.4**	mg/L	0.25	0.087	50		05/12/15 11:25		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505123ABC **Lab ID: 10305759010** Collected: 05/07/15 12:00 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Phosphorus	**571**	ug/L	250	12.9	1	05/14/15 15:58	05/19/15 10:27	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:54	7440-43-9	
Potassium	**25.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.18**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:58	7440-38-2	
Selenium	**0.16**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:58	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.86**	mg/L	1.0	0.051	1		05/17/15 13:12	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**92.0**	mg/L	1.2	0.60	1		05/11/15 19:29	16887-00-6	M1
Fluoride	**0.98**	mg/L	0.050	0.0036	1		05/11/15 19:29	16984-48-8	M1
Nitrate as N	**2.8**	mg/L	0.10	0.050	1		05/11/15 19:29	14797-55-8	M1
Sulfate	**467**	mg/L	6.0	3.0	5		05/14/15 06:38	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**3.7**	mg/L	0.20	0.10	5		05/21/15 13:44	7664-41-7	M1
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.50**	mg/L	0.025	0.0087	5		05/12/15 11:26		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505155 **Lab ID: 10305759013** Collected: 05/07/15 13:10 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:22	7440-43-9	
Potassium	**427**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 04:22	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.098**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:12	7440-38-2	
Selenium	**0.0064**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:12	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.220** U	mg/L	1.0	0.051	1		05/17/15 13:31	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**167**	mg/L	6.0	3.0	5		05/14/15 07:57	16887-00-6	
Fluoride	**0.017** J	mg/L	0.050	0.0036	1		05/11/15 20:14	16984-48-8	
Nitrate as N	**6.8**	mg/L	0.10	0.050	1		05/11/15 20:14	14797-55-8	
Sulfate	**223**	mg/L	6.0	3.0	5		05/14/15 07:57	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.51** J+	mg/L	0.040	0.020	1		05/21/15 11:47	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**14.3**	mg/L	0.50	0.17	100		05/12/15 11:30		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505156 **Lab ID: 10305759015** Collected: 05/07/15 15:05 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:41	7440-43-9	
Potassium	**1160**	mg/L	12.5	0.63	5	05/19/15 09:00	05/21/15 08:07	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.14**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:18	7440-38-2	
Selenium	**0.00059**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:18	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.230** J	mg/L	1.0	0.051	1		05/17/15 13:34	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**317**	mg/L	12.0	6.0	10		05/14/15 08:14	16887-00-6	
Fluoride	**~~36.5~~**	mg/L	2.5	0.18	50		05/14/15 09:34	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/11/15 20:44	14797-55-8	
Sulfate	**226**	mg/L	12.0	6.0	10		05/14/15 08:14	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**11.0** J+	mg/L	0.040	0.020	1		05/21/15 11:48	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**139**	mg/L	5.0	1.7	1000		05/12/15 11:32		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505157ABC **Lab ID: 10305759016** Collected: 05/07/15 15:50 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:47	7440-43-9	
Potassium	**303**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 04:47	7440-09-7	M1
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.095**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:30	7440-38-2	
Selenium	**0.00032J**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:30	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.30J** UJ	mg/L	1.0	0.051	1		05/17/15 13:52	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**228**	mg/L	12.0	6.0	10		05/14/15 08:31	16887-00-6	
Fluoride	**32.4**	mg/L	2.5	0.18	50		05/14/15 09:56	16984-48-8	M6,R1
Nitrate as N	**0.056J**	mg/L	0.10	0.050	1		05/11/15 20:59	14797-55-8	M1
Sulfate	**261**	mg/L	12.0	6.0	10		05/14/15 08:31	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**2.5** J+	mg/L	0.080	0.040	2		05/21/15 13:47	7664-41-7	M1
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**36.6**	mg/L	2.5	0.87	500		05/12/15 11:34		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505158 **Lab ID: 10305759008** Collected: 05/07/15 09:55 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:40	7440-43-9	
Potassium	**19.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.011**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:46	7440-38-2	
Selenium	**0.0054**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:46	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**97.2**	mg/L	12.0	6.0	10		05/14/15 06:21	16887-00-6	
Fluoride	**0.17**	mg/L	0.050	0.0036	1		05/11/15 18:58	16984-48-8	
Nitrate as N	**2.9**	mg/L	0.10	0.050	1		05/11/15 18:58	14797-55-8	
Sulfate	**545**	mg/L	12.0	6.0	10		05/14/15 06:21	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:43	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.082** U	mg/L	0.0050	0.0017	1		05/12/15 11:04		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505165 **Lab ID: 10305759005** Collected: 05/06/15 18:35 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:12	7440-43-9	
Potassium	**14.5**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:12	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.023**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:38	7440-38-2	
Selenium	**0.0085**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:38	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**365**	mg/L	6.0	3.0	5		05/14/15 05:28	16887-00-6	
Fluoride	**0.20**	mg/L	0.050	0.0036	1		05/11/15 17:28	16984-48-8	
Nitrate as N	**5.7**	mg/L	0.10	0.050	1		05/11/15 17:28	14797-55-8	
Sulfate	**232**	mg/L	6.0	3.0	5		05/14/15 05:28	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:38	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.28**	mg/L	0.010	0.0035	2		05/12/15 11:23		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505166 **Lab ID: 10305759003** Collected: 05/06/15 16:50 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 02:59	7440-43-9	
Potassium	**31.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 02:59	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.018**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:32	7440-38-2	
Selenium	**0.0060**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:32	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**234**	mg/L	12.0	6.0	10		05/11/15 23:23	16887-00-6	
Fluoride	**0.64**	mg/L	0.050	0.0036	1		05/11/15 16:58	16984-48-8	
Nitrate as N	**38.0**	mg/L	1.0	0.50	10		05/11/15 23:23	14797-55-8	
Sulfate	**203**	mg/L	12.0	6.0	10		05/11/15 23:23	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:36	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.30**	mg/L	0.010	0.0035	2		05/12/15 11:22		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505167 **Lab ID: 10305759006** Collected: 05/07/15 08:00 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:19	7440-43-9	
Potassium	**12.6**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:19	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.046**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:40	7440-38-2	
Selenium	**0.0022**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:40	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**133**	mg/L	6.0	3.0	5		05/14/15 05:46	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/11/15 17:43	16984-48-8	
Nitrate as N	**0.14**	mg/L	0.10	0.050	1		05/11/15 17:43	14797-55-8	
Sulfate	**141**	mg/L	6.0	3.0	5		05/14/15 05:46	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:39	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**4.4**	mg/L	0.25	0.087	50		05/12/15 11:34		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505168 **Lab ID: 10305759004** Collected: 05/06/15 17:50 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:05	7440-43-9	
Potassium	**16.6**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:05	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.022**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:35	7440-38-2	
Selenium	**0.076**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:35	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**53.7**	mg/L	1.2	0.60	1		05/11/15 17:13	16887-00-6	
Fluoride	**3.5**	mg/L	0.50	0.036	10		05/11/15 23:40	16984-48-8	
Nitrate as N	**20.6**	mg/L	1.0	0.50	10		05/11/15 23:40	14797-55-8	
Sulfate	**1350**	mg/L	24.0	12.0	20		05/14/15 05:10	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.41** J+	mg/L	0.040	0.020	1		05/21/15 11:37	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.095**	mg/L	0.0050	0.0017	1		05/12/15 11:01		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505183 **Lab ID: 10305759007** Collected: 05/07/15 09:10 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:25	7440-43-9	
Potassium	**12.7**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:25	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.014**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:43	7440-38-2	
Selenium	**0.0060**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:43	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**104**	mg/L	6.0	3.0	5		05/14/15 06:03	16887-00-6	
Fluoride	**0.34**	mg/L	0.050	0.0036	1		05/11/15 17:58	16984-48-8	
Nitrate as N	**1.9**	mg/L	0.10	0.050	1		05/11/15 17:58	14797-55-8	
Sulfate	**211**	mg/L	6.0	3.0	5		05/14/15 06:03	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:41	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.053** U	mg/L	0.0050	0.0017	1		05/12/15 11:03		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505601 **Lab ID: 10305759020** Collected: 05/07/15 15:30 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 05:21	7440-43-9	
Potassium	**1130**	mg/L	12.5	0.63	5	05/19/15 09:00	05/21/15 08:12	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.14**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:48	7440-38-2	
Selenium	**0.00072**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:48	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.18** J U	mg/L	1.0	0.051	1		05/17/15 14:04	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**313**	mg/L	12.0	6.0	10		05/14/15 09:19	16887-00-6	
Fluoride	**37.2**	mg/L	2.5	0.18	50		05/14/15 13:00	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/11/15 22:15	14797-55-8	
Sulfate	**222**	mg/L	12.0	6.0	10		05/14/15 09:19	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**10.9** J+	mg/L	0.80	0.40	20		05/21/15 13:53	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**122**	mg/L	5.0	1.7	1000		05/12/15 11:33		H3

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505701 **Lab ID: 10305759014** Collected: 05/07/15 14:00 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND J-	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:37	7440-43-9	
Potassium	ND	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 04:37	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.00029J**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:15	7440-38-2	
Selenium	ND	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:15	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		05/11/15 20:29	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/11/15 20:29	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/11/15 20:29	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		05/11/15 20:29	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:48	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.017**	mg/L	0.0050	0.0017	1		05/12/15 11:11		H3

TECHNICAL REVIEW ACTION SUMMARY

TECHNICAL REVIEW ACTION SUMMARY
SDG 10305759

Arsenic	J1
Cadmium	J-1
Potassium	
Selenium	J1

If the field is left blank no actions or qualifications were necessary.

J1	-	Result is flagged as estimated (J) due to uncertainty at the low levels.
J-1	-	Result reported <2PQL is flagged as estimated with the potential for low bias (J-) due to non-compliant CRI recovery.

SAMPLE ID CODES

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SAMPLE SUMMARY

Project: FMC RCRA
Pace Project No.: 10305759

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10305759001	505115	Water	05/06/15 14:55	05/11/15 09:05
10305759002	505113	Water	05/06/15 15:35	05/11/15 09:05
10305759003	505166	Water	05/06/15 16:50	05/11/15 09:05
10305759004	505168	Water	05/06/15 17:50	05/11/15 09:05
10305759005	505165	Water	05/06/15 18:35	05/11/15 09:05
10305759006	505167	Water	05/07/15 08:00	05/11/15 09:05
10305759007	505183	Water	05/07/15 09:10	05/11/15 09:05
10305759008	505158	Water	05/07/15 09:55	05/11/15 09:05
10305759009	505122	Water	05/07/15 11:05	05/11/15 09:05
10305759010	505123ABC	Water	05/07/15 12:00	05/11/15 09:05
10305759013	505155	Water	05/07/15 13:10	05/11/15 09:05
10305759014	505701	Water	05/07/15 14:00	05/11/15 09:05
10305759015	505156	Water	05/07/15 15:05	05/11/15 09:05
10305759016	505157ABC	Water	05/07/15 15:50	05/11/15 09:05
10305759017	505104	Water	05/07/15 14:20	05/11/15 09:05
10305759020	505601	Water	05/07/15 15:30	05/11/15 09:05

LABORATORY CASE NARRATIVE

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: EPA 6010
Description: 6010 MET ICP
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/54323

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305759010,10305759016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1963716)
  - Potassium

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: EPA 6020
Description: 6020 MET ICPMS
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **SM 4500F/C**
Description: SM4500F-C Fluoride
Client: FMC
Date: May 26, 2015

General Information:
6 samples were analyzed for SM 4500F/C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: WET/41829

B: Analyte was detected in the associated method blank.
- BLANK for HBN 355002 [WET/4182 (Lab ID: 1968130)
  - Fluoride

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22789

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305759010,10305759016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1961704)
  - Chloride
  - Fluoride
  - Nitrate as N
- MSD (Lab ID: 1961705)
  - Chloride
  - Fluoride
  - Nitrate as N
- MSD (Lab ID: 1961707)
  - Nitrate as N

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1961706)
  - Fluoride
- MSD (Lab ID: 1961707)
  - Fluoride

R1: RPD value was outside control limits.

- MSD (Lab ID: 1961707)
  - Fluoride

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 26, 2015

Analyte Comments:

QC Batch: WETA/22789

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1961704)
  - Sulfate
- MSD (Lab ID: 1961705)
  - Sulfate

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(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: EPA 350.1
Description: 350.1 Ammonia
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22962

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305759010,10305759016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1971729)
  - Nitrogen, Ammonia
- MSD (Lab ID: 1971728)
  - Nitrogen, Ammonia
- MSD (Lab ID: 1971730)
  - Nitrogen, Ammonia

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: SM 4500-P E
Description: Phosphate, Ortho Low Level
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- 505104 (Lab ID: 10305759017)
- 505113 (Lab ID: 10305759002)
- 505115 (Lab ID: 10305759001)
- 505122 (Lab ID: 10305759009)
- 505123ABC (Lab ID: 10305759010)
- 505155 (Lab ID: 10305759013)
- 505156 (Lab ID: 10305759015)
- 505157ABC (Lab ID: 10305759016)
- 505158 (Lab ID: 10305759008)
- 505165 (Lab ID: 10305759005)
- 505166 (Lab ID: 10305759003)
- 505167 (Lab ID: 10305759006)
- 505168 (Lab ID: 10305759004)
- 505183 (Lab ID: 10305759007)
- 505601 (Lab ID: 10305759020)
- 505701 (Lab ID: 10305759014)

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305759

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	FMC	Report To:	Ericka Vallance, Hydrometrics	Attention:	Brian McGinnis
Address:	PO BOX 4111	Copy To:	Rob Hartman, MWH	Company Name:	FMC
	POCATELLO, ID 83202		Bruce Wallin, ECCI	Address:	PO BOX 4111 POCATELLO ID 83202
Email To:	brian.mcginnis@fmc.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	FMC	Pace Project Manager:	Kabor Xiong
Requested Due Date/TAT:		Project Number:	RCRA-CERCLA-CALCINER	Pace Profile #:	

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test ↓: 300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505 [illegible] on previous COC					5/6/15	1330		5	2	2	1						X	X	X	X		X	X		Fed Ex Air Bill #
2	End 1st 505 [illegible]	WT	G	--	--		1290		4	2	1															End 1st RCRA SDG
3	Start 2nd 505 115	WT	G	--	--	5/6/15	1455		3									X	X	X	X		X	X		Start of 2nd " " 805816988497
4	RCRA SDG 505 113	WT	G	--	--	5/6/15	1535		3																	805816988497
5	505 166	WT	G	--	--	5/6/15	1650		3																	005
6	505 168	WT	G	--	--		1750		3	1																006
7	505 165	WT	G	--	--		1835		3	1																007
8	505 167	WT	G	--	--	5/7/15	0800		3	1																008
9	505 183	WT	G	--	--		0910		3	1																009
10	505 158	WT	G	--	--		0955		3	1																010
11	505 122	WT	G	--	--		1105		4	1		2										X				
12	505 123A	WT	G	--	--		1200	5	5	2	2	2										X				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
**300.0- Cl, SO4, Nitrate, F	Walter Crowe / Hydrometrics	5/7/15	16:40	[illegible] PACE	5/11/15	
6010: Cadmium, Potassium; 6020: Arsenic, Selenium					KAP 0905	
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123						

SAMPLE CONDITIONS	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	4.6	Y	Y	Y
	4.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crowe

SIGNATURE of SAMPLER: Walter Crowe DATE Signed (MM/DD/YY): 05/ /15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305759

Page: 2 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	FMC	Report To:	Ericka Vallance, Hydrometrics	Attention:	Brian McGinnis
Address:	PO BOX 4111	Copy To:	Rob Hartman, MWH	Company Name:	FMC
	POCATELLO, ID 83202		Bruce Wallin, ECCI	Address:	PO BOX 4111 POCATELLO ID 83202
Email To:	brian.mcginnis@fmc.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	FMC	Pace Project Manager:	Kabor Xiong
Requested Due Date/TAT:		Project Number:	RCRA CERCLA-CALCINER	Pace Profile #:	

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test ↓ 300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505 123B	WT	G	--	--	5/7/15	1200		5	2	1	2							X	X	X	X	X	X	X		Fed Ex Air Bill #
2	505 123C	WT	G	--	--		1200		5	2	1	2										X	X				805816988501 012
3	505 155	WT	G	--	--		1310		5	3	1	1										2					Extra for Lab split 013
4	505 701	WT	G	--	--		1400		3	1	1	1															014
5	505 156	WT	G	--	--		1505		5	3	1	1										2					015
6	505 157A	WT	G	--	--		1550		5	3	1	1										2					016
7	505 104	WT	G	--	--		1420		3	1	1	1															017
8	505 157B	WT	G	--	--		1550		5	2	1	1										X					018
9	505 157C	WT	G	--	--	↓	1550		5	2	1	1										X					019
10	505 601	WT	G	--	--	↓	1530		5	2	1	1										X					020
11	505	WT	G	--	--																						
12	505	WT	G	--	--																						

Requested Analysis Filtered (Y/N)

Extra for Lab split

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**300.0- Cl, SO4, Nitrate, F	Walter Crane / Hydrometrics	5/7/15	16:40	PACE	5/8/15	0905	6.0 / 4.5
6010 Cadmium, Potassium; 6020: Arsenic, Selenium							
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123							

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4 / 4	4 / 4	4 / 4	4 / 4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crane

SIGNATURE of SAMPLER: Walter Crane DATE Signed (MM/DD/YY): 05/07/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: FMC

Project #: WO#: 10305759

10305759

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client

☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 8058 1698 8501, 8058 1698 8491

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: FB

Temp Blank? ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☑ B88A0143310098

Type of Ice: ☐ Wet ☐ Blue ☐ None ☑ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 4.5,5.5 Cooler Temp Corrected (°C): 4.8,6.0

Temp should be above freezing to 6°C Correction Factor: +0.3,+0.5

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Date and Initials of Person Examining Contents: 6/5/15 KHS

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time? KHS 6/5/15	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked?	☑ Yes	☐ No	☐ N/A	13. ☑ HNO_3 ☑ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☑ No	☐ N/A	Sample # 1-5, 7, 13-20, 1-20, 1, 9-12, 2, 2 Still not in compliance (6/5/15)
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: KH Lot # of added preservative: 11HNO
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: June 12, 2015

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

WO#: 1246918
PM: HRZ Due Date: 05/28/15
CLIENT: PACE MPLS

Chain of Custody

Workorder: 10305759 **Workorder Name:** FMC RCRA **Owner Received Date:** 5/11/2015 **Results Requested By:** 5/26/2015

Report To	Subcontract To
Kabor Xiong Pace Analytical Services, Inc. 1700 Elm Street, Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Fax (612)607-6444	Pace Analytical Virginia MN 315 Chestnut Street Virginia, MN 55792 Phone (218)742-1042

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HNO3	Requested Analysis: T. phos by 6010	LAB USE ONLY
1	505122	PS	5/7/2015 11:05	10305759009	Water	1	X	009
2	505123ABC	RQS	5/7/2015 12:00	10305759010	Water	2	X	010
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	5/11/15	[signature]	5/12/15 1515
2	[signature]	5/12/15 2120	[signature]	5/13/15 754
3				

Comments: L4 Data pkg needed - due 6/1/15

Cooler Temperature on Receipt 1.4 °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical®	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-VM-C-001-Rev.09	Issuing Authority: Pace Virginia, Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Pace-MN

Project #: WO# 1246918

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☑Pace ☐Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☑Yes ☐No Seals Intact? ☑Yes ☐No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑Bubble Wrap ☑Bubble Bags ☐None ☐Other: Temp Blank? ☑Yes ☐No

Thermometer Used: ☑ 140792808 Type of Ice: ☑Wet ☐Blue ☐None ☑Samples on ice, cooling process has begun

Cooler Temp Read °C: 1.9 Cooler Temp Corrected °C: 2.2 Biological Tissue Frozen? ☐Yes ☐No ☑NA

Temp should be above freezing to 6°C Correction Factor: +0.3 Date and Initials of Person Examining Contents: JPK 5/12/15

Comments: 5/13/15 TK

Chain of Custody Present?	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out?	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☑Yes	☐No	☐N/A	3.
Sampler Name and Signature on COC?	☐Yes	☐No	☑N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☑No	☐N/A	7.
Sufficient Volume?	☑Yes	☐No	☐N/A	8.
Correct Containers Used?	☑Yes	☐No	☐N/A	9.
-Pace Containers Used?	☑Yes	☐No	☐N/A	
Containers Intact?	☑Yes	☐No	☐N/A	10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	☑Yes	☐No	☐N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation will be checked and documented in the pH logbook.	☑Yes	☐No	☐N/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	☐Yes	☐No	☑N/A	13.
Headspace in VOA Vials (>6mm)?	☐Yes	☐No	☑N/A	14.
Trip Blank Present?	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

FECAL WAIVER ON FILE Y N TEMPERATURE WAIVER ON FILE Y N

Project Manager Review: Heather Zee Date: 5/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

DATA PACKAGE REPORT
SAMPLE DELIVERY GROUP
RCRA SDG
10312267

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 505108A(ABC) **Lab ID: 10312267003** Collected: 06/26/15 10:05 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	**0.50**	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 08:58	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 18:45	7440-43-9	
Potassium	**123**	mg/L	12.5	0.63	5	06/30/15 12:26	07/01/15 10:11	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.018**	mg/L	0.00050	0.00011	1	07/06/15 05:36	07/07/15 08:58	7440-38-2	
Selenium	**0.015**	mg/L	0.00050	0.00020	1	07/06/15 05:36	07/07/15 08:58	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**424**	mg/L	12.0	6.0	10		06/28/15 02:12	16887-00-6	M6
Fluoride	**0.52**	mg/L	0.050	0.0036	1		06/27/15 15:28	16984-48-8	M1
Nitrate as N	**17.8**	mg/L	1.0	0.50	10		06/28/15 02:12	14797-55-8	M6
Sulfate	**350**	mg/L	12.0	6.0	10		06/28/15 02:12	14808-79-8	M6
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.0203**	mg/L	0.040	0.020	1		07/07/15 11:34	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.44**	mg/L	0.025	0.0087	5		06/27/15 15:13		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 505121A **Lab ID: 10312267001** Collected: 06/26/15 09:05 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	**0.72**	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 09:17	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 18:38	7440-43-9	
Potassium	**56.2**	mg/L	12.5	0.63	5	06/30/15 12:26	07/01/15 10:05	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0089**	mg/L	0.00050	0.00011	1	07/02/15 14:33	07/07/15 12:29	7440-38-2	
Selenium	**0.014**	mg/L	0.00050	0.00020	1	07/02/15 14:33	07/07/15 12:29	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**482**	mg/L	12.0	6.0	10		06/28/15 01:37	16887-00-6	
Fluoride	**0.18**	mg/L	0.050	0.0036	1		06/27/15 14:57	16984-48-8	
Nitrate as N	**19.2**	mg/L	1.0	0.50	10		06/28/15 01:37	14797-55-8	
Sulfate	**383**	mg/L	12.0	6.0	10		06/28/15 01:37	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.049**	mg/L	0.040	0.020	1		07/07/15 11:33	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.70**	mg/L	0.025	0.0087	5		06/27/15 15:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 505604 **Lab ID: 10312267002** Collected: 06/26/15 09:30 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	**0.71**	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 08:55	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 18:41	7440-43-9	
Potassium	**55.8**	mg/L	12.5	0.63	5	06/30/15 12:26	07/01/15 10:08	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0092**	mg/L	0.00050	0.00011	1	07/02/15 14:33	07/07/15 12:32	7440-38-2	
Selenium	**0.015**	mg/L	0.00050	0.00020	1	07/02/15 14:33	07/07/15 12:32	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**480**	mg/L	12.0	6.0	10		06/28/15 01:55	16887-00-6	
Fluoride	**0.20**	mg/L	0.050	0.0036	1		06/27/15 15:12	16984-48-8	
Nitrate as N	**19.3**	mg/L	1.0	0.50	10		06/28/15 01:55	14797-55-8	
Sulfate	**381**	mg/L	12.0	6.0	10		06/28/15 01:55	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		07/07/15 11:34	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.64**	mg/L	0.025	0.0087	5		06/27/15 15:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 5051704 **Lab ID: 10312267006** Collected: 06/26/15 10:30 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	ND	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 09:14	7723-14-0	
Cadmium	ND J-	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 19:00	7440-43-9	
Potassium	ND J-	mg/L	2.5	0.13	1	06/30/15 12:26	06/30/15 19:00	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	ND	mg/L	0.00050	0.00011	1	07/06/15 05:36	07/07/15 09:17	7440-38-2	
Selenium	ND	mg/L	0.00050	0.00020	1	07/06/15 05:36	07/07/15 09:17	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		06/27/15 16:43	16887-00-6	
Fluoride	0.070J	mg/L	0.050	0.0036	1		06/27/15 16:43	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		06/27/15 16:43	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		06/27/15 16:43	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		07/07/15 11:38	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	ND	mg/L	0.0050	0.0017	1		06/27/15 15:02		

TECHNICAL REVIEW ACTION SUMMARY

TECHNICAL REVIEW ACTION SUMMARY
SDG 10312267

Arsenic	
Cadmium	J-1
Potassium	J-1
Selenium	

If the field is left blank no actions or qualifications were necessary.

J-1 - Result reported <2PQL is flagged as estimated with the potential for low bias (J-) due to non-compliant CRI recovery.

SAMPLE ID CODES

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

SAMPLE SUMMARY

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10312267001	505121A	Water	06/26/15 09:05	06/27/15 09:15
10312267002	505604	Water	06/26/15 09:30	06/27/15 09:15
10312267003	505108A(ABC)	Water	06/26/15 10:05	06/27/15 09:15
10312267006	5051704	Water	06/26/15 10:30	06/27/15 09:15

LABORATORY CASE NARRATIVE

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: **EPA 6010**
Description: 6010 MET ICP
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: EPA 6010C
Description: 6010C MET ICP
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: EPA 6020
Description: 6020 MET ICPMS
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
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(406)254-7226

PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: EPA 300.0
Description: 300.0 IC Anions
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/23586

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10312024001,10312267003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2008732)
  - Fluoride
- MSD (Lab ID: 2008733)
  - Fluoride

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 2008732)
  - Chloride
  - Nitrate as N
  - Sulfate
- MSD (Lab ID: 2008733)
  - Chloride
  - Nitrate as N
  - Sulfate

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: EPA 350.1
Description: 350.1 Ammonia
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: SM 4500-P E
Description: Phosphate, Ortho Low Level
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical
www.pacelabs.com

Page: of

Section A Required Client Information:

Company:	FMC
Address:	PO BOX 4111
	POCATELLO, ID 83202
Email To:	brian.mcginnis@fmc.com
Phone:	Fax:
Requested Due Date/TAT:	

Section B Required Project Information

Report To:	Ericka Vallance, Hydrometrics
Copy To:	Rob Hartman, MWH
	Bruce Wallin, ECCI
Purchase Order No.:	
Project Name:	FMC
Project Number:	RCRA-CERCLA-CALCINER

Section C Invoice Information:

Attention:	Brian McGinnis
Company Name:	FMC
Address:	PO BOX 4111 POCATELLO ID 83202
Pace Quote Reference:	
Pace Project Manager:	Kabor Xiong
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ⇩ Y/N ⇩	300.0/IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																											Fed Ex Air Bill #
1	505121A	WT	G	–	–	6/26/15	0905		4			2							X	X	X		X	X	X		8713 2040 9665
2	505604	WT	G	–	–		0930																				
3	505108AA	WT	G	–	–		1005																				sample matrix spike matrix spike dup.
4	505108AB	WT	G	–	–		1005																				
5	505108AC	WT	G	–	–		1005																				
6	505704	WT	G	–	–	⇩	1030		⇩	⇩	⇩	⇩	⇩	⇩	⇩	⇩	⇩		⇩	⇩	⇩	⇩	⇩	⇩	⇩		
7	505	WT	G	–	–																						
8	505	WT	G	–	–																						
9	505	WT	G	–	–																						
10	505	WT	G	–	–																						
11	505	WT	G	–	–																						
12	505	WT	G	–	–																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
**300.0- Cl, SO4, Nitrate, F	Walter Crane Hydrometrics	6/26/15	11:30			
6010: Cadmium, Potassium; 6020: Arsenic, Selenium						
Total Phos sub to Pace-VM by 6010 only on wells: 108, 121, 122 & 123						

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crane

SIGNATURE of SAMPLER: Walter DATE Signed (MM/DD/YY): 06/26/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Fax 612 607 6444

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: ALS Env- Project #: WO#: 10312267

10312267

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 871320409605

Custody Seal on Cooler/Box Present? ☐ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other: PB Temp Blank? ☐ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.0 Cooler Temp Corrected (°C): 3.1

Temp should be above freezing to 6°C Correction Factor: 0.1 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Date and Initials of Person Examining Contents: KRC 6/29/15

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT 6/29/15	☑ Yes	☐ No	☐ N/A	12. missing sample see comments on back.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes ☑ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☑ N/A	13. ☑ HNO_3 ☑ H_2SO_4 ☐ NaOH ☐ HCl Sample # 1-6 Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Walter Crane Date/Time: 6/29

Comments/Resolution: "Missing sample does not exist" per client.

Project Manager Review: Kristin Yost Date: June 29, 2015

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Chain of Custody

WO# : 1249367

PM: MMW Due Date: 07/10/15
CLIENT: PACE MPLS

Workorder: 10312267 **Workorder Name:** RCRA-CERLCA-CALCINER **Owner Received Date:** 6/27/2015 **Results Requested By:** 7/10/2015

Report To	Subcontract To	Requested Analysis
Kabor Xiong Pace Analytical Services, Inc. 1700 Elm Street, Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Fax (612)607-6444	Pace Analytical Virginia MN 315 Chestnut Street Virginia, MN 55792 Phone (218)742-1042	Total phos (6010)

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HNO3						Total phos (6010)												LAB USE ONLY
1	505121A	PS	6/26/2015 09:05	10312267001	Water	1						X												001
2	505604	PS	6/26/2015 09:30	10312267002	Water	1						X												002
3	505108A(ABC)	RQS	6/26/2015 10:05	10312267003	Water	3						X												003
4	5051704	PS	6/26/2015 10:30	10312267006	Water	1						X												004
5																								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Kabor Xiong	6/29/15		6/30/15 1310
2				
3				

Comments:

Cooler Temperature on Receipt 7.3/2.9 °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-VM-C-001-Rev.09	Issuing Authority: Pace Virginia, Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Pacemn

Project #: WO#: 1249367

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:

Temp Blank? ☒ Yes ☐ No

Thermometer Used: ☒ 140792808

Type of Ice: ☒ Wet ☐ Blue ☐ None ☒ Samples on ice, cooling process has begun

Cooler Temp Read °C: 2.0/2.6 Cooler Temp Corrected °C: 2.3/2.9

Temp should be above freezing to 6°C Correction Factor: +0.3

Biological Tissue Frozen? ☐ Yes ☐ No ☒ NA

Date and Initials of Person Examining Contents: 6/30/15 TK

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and Signature on COC?	☐ Yes	☐ No	☒ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC? 6/30/15 TK	☒ Yes	☒ No	☐ N/A	12. Redd one sample for 003 + a sample for 004 + 005 (not on coc). Use all 3
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation will be checked and documented in the pH logbook.	☒ Yes	☐ No	☐ N/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	☐ Yes	☐ No	☒ N/A	13.
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

003 per mio.

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: Date/Time: Field Data Required? ☐ Yes ☐ No

Comments/Resolution:

FECAL WAIVER ON FILE Y N TEMPERATURE WAIVER ON FILE Y N

Project Manager Review: Date: 6-30-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

May 20, 2015

Ericka Vallance
Hydrometrics
3020 Bozeman Ave
Helena, MT 59601

RE: Project: FMC RCRA
Pace Project No.: 10305190

Dear Ericka Vallance:
Enclosed are the analytical results for sample(s) received by the laboratory between May 06, 2015 and May 07, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kabor Xiong
kabor.xiong@pacelabs.com
Project Manager

Enclosures

cc: Rob Hartman, MWH Americas, Inc.
Bradly Maddock, FMC
Carrie Ross, FMC
Bruce Wallin, ECCI

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

CERTIFICATIONS

Project: FMC RCRA
Pace Project No.: 10305190

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10305190001	**505174**	Water	05/05/15 09:30	05/06/15 10:00
10305190002	**505177**	Water	05/05/15 10:15	05/06/15 10:00
10305190003	**505154**	Water	05/05/15 10:55	05/06/15 10:00
10305190004	**505178**	Water	05/05/15 11:35	05/06/15 10:00
10305190005	**505600**	Water	05/05/15 11:55	05/06/15 10:00
10305190006	**505173**	Water	05/05/15 12:35	05/06/15 10:00
10305190007	**505171**	Water	05/05/15 13:25	05/06/15 10:00
10305190008	**505CDI**	Water	05/05/15 13:50	05/06/15 10:00
10305190009	**505700**	Water	05/05/15 15:20	05/06/15 10:00
10305190010	**505172**	Water	05/05/15 15:50	05/06/15 10:00
10305190011	**505180**	Water	05/05/15 17:15	05/07/15 10:15
10305190012	**505147**	Water	05/05/15 18:05	05/07/15 10:15
10305190013	**505148**	Water	05/05/15 18:45	05/07/15 10:15
10305190014	**505149**	Water	05/05/15 19:25	05/07/15 10:15
10305190015	**505128**	Water	05/06/15 07:55	05/07/15 10:15
10305190016	**505127**	Water	05/06/15 08:30	05/07/15 10:15
10305190017	**505126**	Water	05/06/15 09:05	05/07/15 10:15
10305190018	**505124**	Water	05/06/15 09:50	05/07/15 10:15
10305190019	**505131**	Water	05/06/15 10:40	05/07/15 10:15
10305190020	**505114ABC**	Water	05/06/15 13:30	05/07/15 10:15

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SAMPLE ANALYTE COUNT

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10305190001	**505174**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190002	**505177**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190003	**505154**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190004	**505178**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190005	**505600**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190006	**505173**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190007	**505171**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M

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SAMPLE ANALYTE COUNT

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10305190008	**505CDI**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190009	**505700**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190010	**505172**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	KEO	1	PASI-M
10305190011	**505180**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190012	**505147**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190013	**505148**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190014	**505149**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190015	**505128**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M

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SAMPLE ANALYTE COUNT

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190016	**505127**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190017	**505126**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190018	**505124**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190019	**505131**	EPA 6010	IP	2	PASI-M
		EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305190020	**505114ABC**	EPA 6010	IP	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 6010**
Description: 6010 MET ICP
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: FMC
Date: May 20, 2015

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 6020**
Description: 6020 MET ICPMS, Dissolved
Client: FMC
Date: May 20, 2015

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **SM 4500F/C**
Description: SM4500F-C Fluoride
Client: FMC
Date: May 20, 2015

General Information:
4 samples were analyzed for SM 4500F/C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: WET/41683

B: Analyte was detected in the associated method blank.

- BLANK for HBN 353704 [WET/4168 (Lab ID: 1960611)
  - Fluoride

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22728

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305190010

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1957263)
  - Sulfate
- MSD (Lab ID: 1957264)
  - Sulfate

QC Batch: WETA/22749

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10304479002,10305190020

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1958344)
  - Chloride
  - Fluoride
- MSD (Lab ID: 1958345)
  - Chloride
  - Fluoride
- MSD (Lab ID: 1958347)
  - Nitrate as N

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305190

Method: **SM 4500-P E**
Description: Phosphate, Ortho Low Level
Client: FMC
Date: May 20, 2015

General Information:
20 samples were analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505174 **Lab ID: 10305190001** Collected: 05/05/15 09:30 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 14:26	7440-43-9	
Potassium	**12.8**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 14:26	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0035**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:08	7440-38-2	
Selenium	**0.0049**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:08	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**190**	mg/L	6.0	3.0	5		05/06/15 18:50	16887-00-6	
Fluoride	**0.77**	mg/L	0.050	0.0036	1		05/06/15 15:16	16984-48-8	
Nitrate as N	**4.7**	mg/L	0.10	0.050	1		05/06/15 15:16	14797-55-8	
Sulfate	**93.8**	mg/L	1.2	0.60	1		05/06/15 15:16	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:07	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.028**	mg/L	0.0050	0.0017	1		05/06/15 13:41		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505177 **Lab ID: 10305190002** Collected: 05/05/15 10:15 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 14:52	7440-43-9	
Potassium	**13.3**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 14:52	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0042**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:13	7440-38-2	
Selenium	**0.0042**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:13	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**169**	mg/L	6.0	3.0	5		05/06/15 19:08	16887-00-6	
Fluoride	**0.72**	mg/L	0.050	0.0036	1		05/06/15 15:31	16984-48-8	
Nitrate as N	**4.2**	mg/L	0.10	0.050	1		05/06/15 15:31	14797-55-8	
Sulfate	**71.6**	mg/L	1.2	0.60	1		05/06/15 15:31	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:09	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.028**	mg/L	0.0050	0.0017	1		05/06/15 13:44		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505154 **Lab ID: 10305190003** Collected: 05/05/15 10:55 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 14:57	7440-43-9	
Potassium	**14.4**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 14:57	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0043**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:36	7440-38-2	
Selenium	**0.0032**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:36	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**190**	mg/L	6.0	3.0	5		05/06/15 19:26	16887-00-6	
Fluoride	**1.0**	mg/L	0.050	0.0036	1		05/06/15 15:46	16984-48-8	
Nitrate as N	**2.8**	mg/L	0.10	0.050	1		05/06/15 15:46	14797-55-8	
Sulfate	**55.7**	mg/L	1.2	0.60	1		05/06/15 15:46	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:09	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.025**	mg/L	0.0050	0.0017	1		05/06/15 13:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505178 **Lab ID: 10305190004** Collected: 05/05/15 11:35 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:10	7440-43-9	
Potassium	**24.3**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:10	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0088**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:54	7440-38-2	
Selenium	**0.0060**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:54	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.29J**	mg/L	1.0	0.051	1		05/09/15 11:27	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**565**	mg/L	12.0	6.0	10		05/06/15 19:43	16887-00-6	
Fluoride	**0.30**	mg/L	0.050	0.0036	1		05/06/15 16:01	16984-48-8	
Nitrate as N	**5.7**	mg/L	0.10	0.050	1		05/06/15 16:01	14797-55-8	
Sulfate	**374**	mg/L	12.0	6.0	10		05/06/15 19:43	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:11	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.039**	mg/L	0.0050	0.0017	1		05/06/15 13:46		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505600 **Lab ID: 10305190005** Collected: 05/05/15 11:55 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:16	7440-43-9	
Potassium	**22.9**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:16	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0088**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 18:59	7440-38-2	
Selenium	**0.0058**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 18:59	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.28J**	mg/L	1.0	0.051	1		05/09/15 11:32	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**581**	mg/L	12.0	6.0	10		05/06/15 20:18	16887-00-6	
Fluoride	**0.30**	mg/L	0.050	0.0036	1		05/06/15 16:16	16984-48-8	
Nitrate as N	**5.7**	mg/L	0.10	0.050	1		05/06/15 16:16	14797-55-8	
Sulfate	**388**	mg/L	12.0	6.0	10		05/06/15 20:18	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:13	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.039**	mg/L	0.0050	0.0017	1		05/06/15 13:47		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505173 **Lab ID: 10305190006** Collected: 05/05/15 12:35 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:23	7440-43-9	
Potassium	**14.0**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:23	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0032**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:03	7440-38-2	
Selenium	**0.0046**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:03	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**218**	mg/L	6.0	3.0	5		05/06/15 21:23	16887-00-6	
Fluoride	**0.84**	mg/L	0.050	0.0036	1		05/06/15 16:32	16984-48-8	
Nitrate as N	**3.5**	mg/L	0.10	0.050	1		05/06/15 16:32	14797-55-8	
Sulfate	**66.7**	mg/L	1.2	0.60	1		05/06/15 16:32	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:14	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.022**	mg/L	0.0050	0.0017	1		05/06/15 13:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505171 **Lab ID: 10305190007** Collected: 05/05/15 13:25 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:28	7440-43-9	
Potassium	**22.6**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:28	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.018**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:08	7440-38-2	
Selenium	**0.0027**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:08	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**193**	mg/L	6.0	3.0	5		05/06/15 21:40	16887-00-6	
Fluoride	**0.54**	mg/L	0.050	0.0036	1		05/06/15 16:47	16984-48-8	
Nitrate as N	**5.4**	mg/L	0.10	0.050	1		05/06/15 16:47	14797-55-8	
Sulfate	**88.9**	mg/L	1.2	0.60	1		05/06/15 16:47	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:15	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.10**	mg/L	0.0050	0.0017	1		05/06/15 13:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505CDI **Lab ID: 10305190008** Collected: 05/05/15 13:50 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:32	7440-43-9	
Potassium	ND	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:32	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	ND	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:12	7440-38-2	
Selenium	ND	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:12	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		05/06/15 17:02	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/06/15 17:02	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/06/15 17:02	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		05/06/15 17:02	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:16	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	ND	mg/L	0.0050	0.0017	1		05/06/15 13:51		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505700 **Lab ID: 10305190009** Collected: 05/05/15 15:20 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:37	7440-43-9	
Potassium	ND	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:37	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.00021J**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:17	7440-38-2	
Selenium	ND	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:17	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		05/06/15 17:47	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/06/15 17:47	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/06/15 17:47	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		05/06/15 17:47	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.021J**	mg/L	0.040	0.020	1		05/19/15 12:16	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.0025J**	mg/L	0.0050	0.0017	1		05/06/15 13:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505172 **Lab ID: 10305190010** Collected: 05/05/15 15:50 Received: 05/06/15 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/07/15 09:41	05/07/15 15:41	7440-43-9	
Potassium	**25.7**	mg/L	2.5	0.13	1	05/07/15 09:41	05/07/15 15:41	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.021**	mg/L	0.00050	0.00011	1	05/08/15 08:08	05/13/15 19:21	7440-38-2	
Selenium	**0.0037**	mg/L	0.00050	0.00020	1	05/08/15 08:08	05/13/15 19:21	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**119**	mg/L	12.0	6.0	10		05/06/15 21:58	16887-00-6	
Fluoride	**0.59**	mg/L	0.050	0.0036	1		05/06/15 18:02	16984-48-8	
Nitrate as N	**8.4**	mg/L	1.0	0.50	10		05/06/15 21:58	14797-55-8	
Sulfate	**73.9**	mg/L	1.2	0.60	1		05/06/15 18:02	14808-79-8	M1
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:18	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.30**	mg/L	0.025	0.0087	5		05/06/15 14:01		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505180 **Lab ID: 10305190011** Collected: 05/05/15 17:15 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 17:56	7440-43-9	
Potassium	**32.8**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 17:56	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.044**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:24	7440-38-2	
Selenium	**0.0044**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:24	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**130**	mg/L	12.0	6.0	10		05/07/15 15:56	16887-00-6	
Fluoride	**0.48**	mg/L	0.050	0.0036	1		05/07/15 14:54	16984-48-8	
Nitrate as N	**42.6**	mg/L	1.0	0.50	10		05/07/15 15:56	14797-55-8	
Sulfate	**129**	mg/L	12.0	6.0	10		05/07/15 15:56	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:38	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.44**	mg/L	0.025	0.0087	5		05/07/15 15:04		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505147 **Lab ID: 10305190012** Collected: 05/05/15 18:05 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:03	7440-43-9	
Potassium	**12.1**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:03	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0046**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:28	7440-38-2	
Selenium	**0.0041**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:28	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**153**	mg/L	6.0	3.0	5		05/07/15 22:47	16887-00-6	
Fluoride	**0.70**	mg/L	0.050	0.0036	1		05/07/15 15:09	16984-48-8	
Nitrate as N	**4.4**	mg/L	0.10	0.050	1		05/07/15 15:09	14797-55-8	
Sulfate	**66.5**	mg/L	1.2	0.60	1		05/07/15 15:09	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:41	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.033**	mg/L	0.0050	0.0017	1		05/07/15 14:53		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505148 **Lab ID: 10305190013** Collected: 05/05/15 18:45 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:08	7440-43-9	
Potassium	**13.4**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:08	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0072**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:33	7440-38-2	
Selenium	**0.0057**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:33	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**163**	mg/L	6.0	3.0	5		05/07/15 23:05	16887-00-6	
Fluoride	**0.76**	mg/L	0.050	0.0036	1		05/07/15 15:24	16984-48-8	
Nitrate as N	**3.6**	mg/L	0.10	0.050	1		05/07/15 15:24	14797-55-8	
Sulfate	**89.8**	mg/L	1.2	0.60	1		05/07/15 15:24	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:42	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.062**	mg/L	0.0050	0.0017	1		05/07/15 14:53		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505149 **Lab ID: 10305190014** Collected: 05/05/15 19:25 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	**0.00075J**	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:12	7440-43-9	
Potassium	**11.7**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:12	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0068**	mg/L	0.0010	0.00023	2	05/13/15 21:04	05/19/15 10:37	7440-38-2	
Selenium	**0.0020**	mg/L	0.0010	0.00040	2	05/13/15 21:04	05/19/15 10:37	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**114**	mg/L	6.0	3.0	5		05/07/15 23:22	16887-00-6	
Fluoride	**1.0**	mg/L	0.050	0.0036	1		05/07/15 15:39	16984-48-8	
Nitrate as N	**2.0**	mg/L	0.10	0.050	1		05/07/15 15:39	14797-55-8	
Sulfate	**59.4**	mg/L	1.2	0.60	1		05/07/15 15:39	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:43	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.064**	mg/L	0.0050	0.0017	1		05/07/15 14:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(406)254-7226

ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505128 **Lab ID: 10305190015** Collected: 05/06/15 07:55 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:17	7440-43-9	
Potassium	**16.7**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:17	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.019**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:42	7440-38-2	
Selenium	**0.0051**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:42	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**281**	mg/L	6.0	3.0	5		05/08/15 00:10	16887-00-6	
Fluoride	**0.45**	mg/L	0.050	0.0036	1		05/07/15 16:42	16984-48-8	
Nitrate as N	**6.9**	mg/L	0.10	0.050	1		05/07/15 16:42	14797-55-8	
Sulfate	**120**	mg/L	6.0	3.0	5		05/08/15 00:10	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.026J**	mg/L	0.040	0.020	1		05/19/15 12:45	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.16**	mg/L	0.0050	0.0017	1		05/07/15 14:55		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505127 **Lab ID: 10305190016** Collected: 05/06/15 08:30 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:24	7440-43-9	
Potassium	**14.1**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:24	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0077**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:47	7440-38-2	
Selenium	**0.0069**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:47	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**298**	mg/L	6.0	3.0	5		05/08/15 00:28	16887-00-6	
Fluoride	**0.56**	mg/L	0.050	0.0036	1		05/07/15 16:57	16984-48-8	
Nitrate as N	**5.6**	mg/L	0.10	0.050	1		05/07/15 16:57	14797-55-8	
Sulfate	**194**	mg/L	6.0	3.0	5		05/08/15 00:28	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.051**	mg/L	0.040	0.020	1		05/19/15 12:47	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.080**	mg/L	0.0050	0.0017	1		05/07/15 14:56		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505126 **Lab ID: 10305190017** Collected: 05/06/15 09:05 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:38	7440-43-9	
Potassium	**9.3**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:38	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0077**	mg/L	0.0010	0.00023	2	05/13/15 21:04	05/19/15 10:51	7440-38-2	
Selenium	**0.0024**	mg/L	0.0010	0.00040	2	05/13/15 21:04	05/19/15 10:51	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**95.3**	mg/L	1.2	0.60	1		05/07/15 17:57	16887-00-6	
Fluoride	**0.94**	mg/L	0.050	0.0036	1		05/07/15 17:57	16984-48-8	
Nitrate as N	**2.2**	mg/L	0.10	0.050	1		05/07/15 17:57	14797-55-8	
Sulfate	**86.5**	mg/L	1.2	0.60	1		05/07/15 17:57	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:47	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.067**	mg/L	0.0050	0.0017	1		05/07/15 14:57		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505124 **Lab ID: 10305190018** Collected: 05/06/15 09:50 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	**0.00066J**	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:43	7440-43-9	
Potassium	**12.5**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:43	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.012**	mg/L	0.0025	0.00056	5	05/13/15 21:04	05/19/15 10:56	7440-38-2	
Selenium	**0.0047**	mg/L	0.0025	0.0010	5	05/13/15 21:04	05/19/15 10:56	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**174**	mg/L	6.0	3.0	5		05/08/15 01:34	16887-00-6	
Fluoride	**0.78**	mg/L	0.050	0.0036	1		05/07/15 18:13	16984-48-8	
Nitrate as N	**3.1**	mg/L	0.10	0.050	1		05/07/15 18:13	14797-55-8	
Sulfate	**89.9**	mg/L	1.2	0.60	1		05/07/15 18:13	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/19/15 12:48	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.088**	mg/L	0.0050	0.0017	1		05/07/15 14:58		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505131 **Lab ID: 10305190019** Collected: 05/06/15 10:40 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	**0.00090J**	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:48	7440-43-9	
Potassium	**13.6**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:48	7440-09-7	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium, Dissolved	**0.0025J**	mg/L	0.0030	0.00065	1	05/20/15 10:32	05/20/15 11:29	7440-43-9	
Potassium, Dissolved	**13.7**	mg/L	2.5	0.13	1	05/20/15 10:32	05/20/15 11:29	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.049**	mg/L	0.00050	0.00011	1	05/13/15 21:04	05/19/15 11:19	7440-38-2	
Selenium	**0.00086**	mg/L	0.00050	0.00020	1	05/13/15 21:04	05/19/15 11:19	7782-49-2	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic, Dissolved	**0.050**	mg/L	0.00050	0.00011	1	05/17/15 21:50	05/20/15 12:14	7440-38-2	
Selenium, Dissolved	**0.00083**	mg/L	0.00050	0.00020	1	05/17/15 21:50	05/20/15 12:14	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.13J**	mg/L	1.0	0.051	1		05/09/15 11:36	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**196**	mg/L	6.0	3.0	5		05/08/15 01:52	16887-00-6	
Fluoride	**74.8**	mg/L	2.5	0.18	50		05/08/15 10:24	16984-48-8	
Nitrate as N	**0.056J**	mg/L	0.10	0.050	1		05/07/15 18:28	14797-55-8	
Sulfate	**167**	mg/L	6.0	3.0	5		05/08/15 01:52	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.037J**	mg/L	0.040	0.020	1		05/19/15 12:49	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**6.1**	mg/L	0.25	0.087	50		05/07/15 15:05		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305190

Sample: 505114ABC **Lab ID: 10305190020** Collected: 05/06/15 13:30 Received: 05/07/15 10:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/12/15 08:48	05/12/15 18:53	7440-43-9	
Potassium	**26.6**	mg/L	2.5	0.13	1	05/12/15 08:48	05/12/15 18:53	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.12**	mg/L	0.00050	0.00011	1	05/13/15 21:04	05/19/15 11:23	7440-38-2	
Selenium	**0.0022**	mg/L	0.00050	0.00020	1	05/13/15 21:04	05/19/15 11:23	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**1.0**	mg/L	1.0	0.051	1		05/09/15 11:42	16984-48-8	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**132**	mg/L	6.0	3.0	5		05/08/15 00:46	16887-00-6	M1
Fluoride	**1.5**	mg/L	0.050	0.0036	1		05/07/15 17:12	16984-48-8	M1
Nitrate as N	ND	mg/L	0.10	0.050	1		05/07/15 17:12	14797-55-8	
Sulfate	**99.5**	mg/L	6.0	3.0	5		05/08/15 00:46	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**1.9**	mg/L	0.040	0.020	1		05/19/15 12:50	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**1.5**	mg/L	0.10	0.035	20		05/07/15 15:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(406)254-7226

QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: MPRP/54199 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

METHOD BLANK: 1957936 Matrix: Water
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	mg/L	ND	0.0030	05/07/15 14:18	
Potassium	mg/L	ND	2.5	05/07/15 14:18	

LABORATORY CONTROL SAMPLE: 1957937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	1	1.0	104	86-108	
Potassium	mg/L	10	10.5	105	85-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1957938 1957939

Parameter	Units	10305190001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	1	1	1.0	1.0	102	104	83-112	2	20	
Potassium	mg/L	12.8	10	10	22.6	23.4	99	106	82-118	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: MPRP/54258 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

METHOD BLANK: 1959726 Matrix: Water
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	mg/L	ND	0.0030	05/12/15 17:48	
Potassium	mg/L	ND	2.5	05/12/15 17:48	

LABORATORY CONTROL SAMPLE: 1959727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	1	0.95	95	86-108	
Potassium	mg/L	10	9.7	97	85-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1959728 1959729

Parameter	Units	10305190020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	1	1	0.91	0.89	91	88	83-112	3	20	
Potassium	mg/L	26.6	10	10	35.9	34.9	93	83	82-118	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: MPRP/54540
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 10305190019

METHOD BLANK: 1970917 Matrix: Water
Associated Lab Samples: 10305190019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium, Dissolved	mg/L	ND	0.0030	05/20/15 11:21	
Potassium, Dissolved	mg/L	ND	2.5	05/20/15 11:21	

LABORATORY CONTROL SAMPLE: 1970918

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium, Dissolved	mg/L	1	1.0	102	86-108	
Potassium, Dissolved	mg/L	10	9.6	96	85-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970919 1970920

Parameter	Units	10305190019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium, Dissolved	mg/L	0.0025J	1	1	1.0	1.0	100	100	83-112	0	20	
Potassium, Dissolved	mg/L	13.7	10	10	23.9	23.7	102	100	82-118	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: MPRP/54201 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

METHOD BLANK: 1957962 Matrix: Water
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	05/13/15 17:59	
Selenium	mg/L	ND	0.00050	05/13/15 17:59	

LABORATORY CONTROL SAMPLE: 1957963

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.08	0.077	96	92-110	
Selenium	mg/L	.08	0.075	94	93-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1957964 1957965

Parameter	Units	10305190002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0042	.08	.08	0.081	0.081	96	96	89-114	0	20	
Selenium	mg/L	0.0042	.08	.08	0.081	0.082	95	97	85-117	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: MPRP/54291 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

METHOD BLANK: 1961104 Matrix: Water
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	05/19/15 10:19	
Selenium	mg/L	ND	0.00050	05/19/15 10:19	

LABORATORY CONTROL SAMPLE: 1961105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.08	0.081	101	92-110	
Selenium	mg/L	.08	0.081	101	93-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1961106 1961107

Parameter	Units	10305190020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.12	.08	.08	0.21	0.21	102	109	89-114	3	20	
Selenium	mg/L	0.0022	.08	.08	0.081	0.082	98	100	85-117	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: MPRP/54494
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Associated Lab Samples: 10305190019

METHOD BLANK: 1968326 Matrix: Water
Associated Lab Samples: 10305190019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	mg/L	ND	0.00050	05/19/15 15:00	
Selenium, Dissolved	mg/L	ND	0.00050	05/19/15 15:00	

LABORATORY CONTROL SAMPLE: 1968327

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	mg/L	.08	0.078	98	92-110	
Selenium, Dissolved	mg/L	.08	0.085	106	93-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1968328 1968329

Parameter	Units	10305190019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	mg/L	0.050	.08	.08	0.13	0.13	95	96	89-114	1	20	
Selenium, Dissolved	mg/L	0.00083	.08	.08	0.086	0.085	106	105	85-117	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: WET/41683 Analysis Method: SM 4500F/C
QC Batch Method: SM 4500F/C Analysis Description: SM4500F-C Fluoride
Associated Lab Samples: 10305190004, 10305190005, 10305190019, 10305190020

METHOD BLANK: 1960611 Matrix: Water
Associated Lab Samples: 10305190004, 10305190005, 10305190019, 10305190020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	0.13J	1.0	05/09/15 10:05	

LABORATORY CONTROL SAMPLE: 1960612

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960613 1960614

Parameter	Units	10304789001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	1.2	5	5	5.8	6.6	93	109	80-120	13	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960615 1960616

Parameter	Units	10305190020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	1.0	5	5	5.2	5.8	84	96	80-120	11	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(406)254-7226

QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: WETA/22728 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

METHOD BLANK: 1957261 Matrix: Water
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.2	05/06/15 14:46	
Fluoride	mg/L	ND	0.050	05/06/15 14:46	
Nitrate as N	mg/L	ND	0.10	05/06/15 14:46	
Sulfate	mg/L	ND	1.2	05/06/15 14:46	

LABORATORY CONTROL SAMPLE: 1957262

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	12.5	12.4	99	90-110	
Fluoride	mg/L	1	0.96	96	90-110	
Nitrate as N	mg/L	1	0.93	93	90-110	
Sulfate	mg/L	12.5	11.8	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1957263 1957264

Parameter	Units	10305190010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	119	125	125	249	249	105	104	90-110	0	20	
Fluoride	mg/L	0.59	1	1	1.5	1.5	91	92	90-110	0	20	
Nitrate as N	mg/L	8.4	10	10	19.3	19.2	108	107	90-110	1	20	
Sulfate	mg/L	73.9	12.5	12.5	78.6	78.7	38	39	90-110	0	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: WETA/22749 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

METHOD BLANK: 1958342 Matrix: Water
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.2	05/07/15 16:27	
Fluoride	mg/L	ND	0.050	05/07/15 16:27	
Nitrate as N	mg/L	ND	0.10	05/07/15 16:27	
Sulfate	mg/L	ND	1.2	05/07/15 16:27	

LABORATORY CONTROL SAMPLE: 1958343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	12.5	12.5	100	90-110	
Fluoride	mg/L	1	0.98	98	90-110	
Nitrate as N	mg/L	1	0.94	94	90-110	
Sulfate	mg/L	12.5	11.9	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1958344 1958345

Parameter	Units	10305190020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	132	62.5	62.5	186	185	85	85	90-110	0	20	M1
Fluoride	mg/L	1.5	1	1	3.6	3.6	214	213	90-110	0	20	M1
Nitrate as N	mg/L	ND	1	1	0.95	0.95	90	90	90-110	0	20	
Sulfate	mg/L	99.5	62.5	62.5	156	156	91	91	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1958346 1958347

Parameter	Units	10304479002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	<0.60	12.5	12.5	12.6	12.4	98	97	90-110	1	20	
Fluoride	mg/L	<0.0036	1	1	0.99	0.97	99	97	90-110	2	20	
Nitrate as N	mg/L	<0.050	1	1	0.93	0.92	90	89	90-110	1	20	M1
Sulfate	mg/L	<0.60	12.5	12.5	12.0	11.8	93	92	90-110	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: WETA/22894 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

METHOD BLANK: 1968595 Matrix: Water
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.040	05/19/15 12:02	

LABORATORY CONTROL SAMPLE: 1968596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1968597 1968598

Parameter	Units	10305844001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	ND	1	1	1.0	1.0	101	101	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1968599 1968600

Parameter	Units	10305190010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	ND	1	1	1.0	0.98	100	97	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: WETA/22895 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

METHOD BLANK: 1968605 Matrix: Water
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.040	05/19/15 12:29	

LABORATORY CONTROL SAMPLE: 1968606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	0.95	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1968607 1968608

Parameter	Units	10305190011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	ND	1	1	1.0	1.0	103	103	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1968609 1968610

Parameter	Units	10305190020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.9	1	1	3.0	2.9	106	102	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: WETA/22727 Analysis Method: SM 4500-P E
QC Batch Method: SM 4500-P E Analysis Description: SM4500P-E, Phosphate, Ortho
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

METHOD BLANK: 1957194 Matrix: Water
Associated Lab Samples: 10305190001, 10305190002, 10305190003, 10305190004, 10305190005, 10305190006, 10305190007, 10305190008, 10305190009, 10305190010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.0050	05/06/15 13:40	

LABORATORY CONTROL SAMPLE: 1957195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	.1	0.095	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1957196 1957197

Parameter	Units	10305190001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	0.028	.1	.1	0.12	0.12	94	96	80-120	1	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1957198 1957199

Parameter	Units	10304959003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	.1	.1	0.094	0.095	94	95	80-120	1	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305190

QC Batch: WETA/22750 Analysis Method: SM 4500-P E
QC Batch Method: SM 4500-P E Analysis Description: SM4500P-E, Phosphate, Ortho
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

METHOD BLANK: 1958361 Matrix: Water
Associated Lab Samples: 10305190011, 10305190012, 10305190013, 10305190014, 10305190015, 10305190016, 10305190017, 10305190018, 10305190019, 10305190020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.0050	05/07/15 15:08	

LABORATORY CONTROL SAMPLE: 1958362

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	.1	0.096	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1958363 1958364

Parameter	Units	10305190020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	1.5	2	2	3.4	3.4	93	94	80-120	1	30	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: FMC RCRA
Pace Project No.: 10305190

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10305190001	**505174**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190002	**505177**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190003	**505154**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190004	**505178**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190005	**505600**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190006	**505173**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190007	**505171**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190008	**505CDI**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190009	**505700**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190010	**505172**	EPA 3010	MPRP/54199	EPA 6010	ICP/23694
10305190011	**505180**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190012	**505147**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190013	**505148**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190014	**505149**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190015	**505128**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190016	**505127**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190017	**505126**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190018	**505124**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190019	**505131**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190020	**505114ABC**	EPA 3010	MPRP/54258	EPA 6010	ICP/23744
10305190019	**505131**	EPA 3010	MPRP/54540	EPA 6010	ICP/23831
10305190001	**505174**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190002	**505177**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190003	**505154**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190004	**505178**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190005	**505600**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190006	**505173**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190007	**505171**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190008	**505CDI**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190009	**505700**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190010	**505172**	EPA 3020	MPRP/54201	EPA 6020	ICPM/24221
10305190011	**505180**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190012	**505147**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190013	**505148**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190014	**505149**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190015	**505128**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190016	**505127**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190017	**505126**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190018	**505124**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190019	**505131**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190020	**505114ABC**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305190019	**505131**	EPA 3020	MPRP/54494	EPA 6020	ICPM/24355
10305190004	**505178**	SM 4500F/C	WET/41683		
10305190005	**505600**	SM 4500F/C	WET/41683		
10305190019	**505131**	SM 4500F/C	WET/41683		
10305190020	**505114ABC**	SM 4500F/C	WET/41683		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10305190001	**505174**	EPA 300.0	WETA/22728		
10305190002	**505177**	EPA 300.0	WETA/22728		
10305190003	**505154**	EPA 300.0	WETA/22728		
10305190004	**505178**	EPA 300.0	WETA/22728		
10305190005	**505600**	EPA 300.0	WETA/22728		
10305190006	**505173**	EPA 300.0	WETA/22728		
10305190007	**505171**	EPA 300.0	WETA/22728		
10305190008	**505CDI**	EPA 300.0	WETA/22728		
10305190009	**505700**	EPA 300.0	WETA/22728		
10305190010	**505172**	EPA 300.0	WETA/22728		
10305190011	**505180**	EPA 300.0	WETA/22749		
10305190012	**505147**	EPA 300.0	WETA/22749		
10305190013	**505148**	EPA 300.0	WETA/22749		
10305190014	**505149**	EPA 300.0	WETA/22749		
10305190015	**505128**	EPA 300.0	WETA/22749		
10305190016	**505127**	EPA 300.0	WETA/22749		
10305190017	**505126**	EPA 300.0	WETA/22749		
10305190018	**505124**	EPA 300.0	WETA/22749		
10305190019	**505131**	EPA 300.0	WETA/22749		
10305190020	**505114ABC**	EPA 300.0	WETA/22749		
10305190001	**505174**	EPA 350.1	WETA/22894		
10305190002	**505177**	EPA 350.1	WETA/22894		
10305190003	**505154**	EPA 350.1	WETA/22894		
10305190004	**505178**	EPA 350.1	WETA/22894		
10305190005	**505600**	EPA 350.1	WETA/22894		
10305190006	**505173**	EPA 350.1	WETA/22894		
10305190007	**505171**	EPA 350.1	WETA/22894		
10305190008	**505CDI**	EPA 350.1	WETA/22894		
10305190009	**505700**	EPA 350.1	WETA/22894		
10305190010	**505172**	EPA 350.1	WETA/22894		
10305190011	**505180**	EPA 350.1	WETA/22895		
10305190012	**505147**	EPA 350.1	WETA/22895		
10305190013	**505148**	EPA 350.1	WETA/22895		
10305190014	**505149**	EPA 350.1	WETA/22895		
10305190015	**505128**	EPA 350.1	WETA/22895		
10305190016	**505127**	EPA 350.1	WETA/22895		
10305190017	**505126**	EPA 350.1	WETA/22895		
10305190018	**505124**	EPA 350.1	WETA/22895		
10305190019	**505131**	EPA 350.1	WETA/22895		
10305190020	**505114ABC**	EPA 350.1	WETA/22895		
10305190001	**505174**	SM 4500-P E	WETA/22727		
10305190002	**505177**	SM 4500-P E	WETA/22727		
10305190003	**505154**	SM 4500-P E	WETA/22727		
10305190004	**505178**	SM 4500-P E	WETA/22727		
10305190005	**505600**	SM 4500-P E	WETA/22727		
10305190006	**505173**	SM 4500-P E	WETA/22727		

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC RCRA
Pace Project No.: 10305190

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10305190007	**505171**	SM 4500-P E	WETA/22727		
10305190008	**505CDI**	SM 4500-P E	WETA/22727		
10305190009	**505700**	SM 4500-P E	WETA/22727		
10305190010	**505172**	SM 4500-P E	WETA/22727		
10305190011	**505180**	SM 4500-P E	WETA/22750		
10305190012	**505147**	SM 4500-P E	WETA/22750		
10305190013	**505148**	SM 4500-P E	WETA/22750		
10305190014	**505149**	SM 4500-P E	WETA/22750		
10305190015	**505128**	SM 4500-P E	WETA/22750		
10305190016	**505127**	SM 4500-P E	WETA/22750		
10305190017	**505126**	SM 4500-P E	WETA/22750		
10305190018	**505124**	SM 4500-P E	WETA/22750		
10305190019	**505131**	SM 4500-P E	WETA/22750		
10305190020	**505114ABC**	SM 4500-P E	WETA/22750		

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SHORT HOLD 5/6/15 BP

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305190

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	FMC	Report To:	Ericka Vallance, Hydrometrics	Attention:	Brian McGinnis
Address:	PO BOX 4111	Copy To:	Rob Hartman, MWH	Company Name:	FMC
	POCATELLO, ID 83202		Bruce Wallin, ECCI	Address:	PO BOX 4111 POCATELLO ID 83202
Email To:	brian.mcginnis@fmc.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	FMC	Pace Project Manager:	Kabor Xiong
Requested Due Date/TAT:		Project Number:	RCRA-CERCLA-CALCINER	Pace Profile #:	

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505174	WT	G	--	--	5/5/15	0930		3	1	1	1							X	X	X			X	X		Fed Ex Air Bill # 001
2	505177	WT	G	--	--		1015		3																		805816988475 002
3	505154	WT	G	--	--		1055		3																		003
4	505178	WT	G	--	--		1135		4	2												X					004
5	505600	WT	G	--	--		1155		4	2												X					005
6	505173	WT	G	--	--		1235		3	1																	006
7	505171	WT	G	--	--		1325		3																		007
8	505CDI	WT	G	--	--		1350		3																		008
9	505700	WT	G	--	--		1520		3																		009
10	505172	WT	G	--	--		1550		3																		010
11	505	WT	G	--	--																						
12	505	WT	G	--	--																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**300.0- Cl, SO4, Nitrate, F.	Walter Crane / Hydrometrics	5/5/15	16:30	[illegible] PACO	5/6/15	1000	4.9	X	X	X
6010: Cadmium, Potassium; 6020: Arsenic, Selenium										
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crane

SIGNATURE of SAMPLER: Walter Crane DATE Signed (MM/DD/YY): 5/5/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: FMC

Project #: WO#: 10305190

10305190

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 7058 1698 5475

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☑ B88A9130516413 ☐ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 4.6 **Cooler Temp Corrected (°C):** 4.9

Temp should be above freezing to 6°C **Correction Factor:** +0.3 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Date and Initials of Person Examining Contents: 5/6/15 BD

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes	☐ No	☐ N/A	13. ½ ☑ HNO_3 ½ ☑ H_2SO_4 ☐ NaOH ☐ HCl Sample # 01-10
	☑ Yes	☐ No	☐ N/A	
	☐ Yes	☐ No	☑ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Kayla Xiong **Date:** May 6, 2015

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical™ www.pacelabs.com

SHORT HOLD 5/7/15 BD

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305190

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	FMC	Report To:	Ericka Vallance, Hydrometrics	Attention:	Brian McGinnis
Address:	PO BOX 4111	Copy To:	Rob Hartman, MWH	Company Name:	FMC
	POCATELLO, ID 83202		Bruce Wallin, ECCI	Address:	PO BOX 4111 POCATELLO ID 83202
Email To:	brian.mcginnis@fmc.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	FMC	Pace Project Manager:	Kabor Xiong
Requested Due Date/TAT:		Project Number:	RCRA-CERCLA-CALCINER	Pace Profile #:	

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Dissolved Metals*	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505180	WT	G	–	–	5/5/15	1715		3	1	1	1							X	X	X			X	X		Fed Ex Air Bill # 011
2	505147	WT	G	–	–		1805																				805816988486
3	505148	WT	G	–	–		1845																				013
4	505149	WT	G	–	–		1925																				014
5	505128	WT	G	–	–	5/6/15	0755																				015
6	505127	WT	G	–	–		0830																				016
7	505126	WT	G	–	–		0905																				017
8	505124	WT	G	–	–		0950																				018
9	505131	WT	G	–	–		1040		5	2	2											X			X		019 End of 1st RCRA SDG
10	505114A	WT	G	–	–		1330		5	3	1											X					020
11	505114B	WT	G	–	–		1330		4	2												X					2 extra for lab split
12	505114C	WT	G	–	–		1330		4	2												X					022

End of 1st RCRA SDG

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**300.0- Cl, SO4, Nitrate, F	Walter Crane / Hydrometrics	5/6/15	16:20	[illegible] Pace	5/7/15	10:15	5.1	X	Y	Y
6010: Cadmium, Potassium; 6020: Arsenic, Selenium										
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crane

SIGNATURE of SAMPLER: Walter Crane DATE Signed (MM/DD/YY): 05/06/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

* Dissolved metals were field filtered

3 of 4

Page 54 of 55

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: **F-MN-L-213-rev.13**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: FMC

Project #: WO#: 10305190

10305190

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 8058 1698 8486

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 4.8 **Cooler Temp Corrected (°C):** 5.1

Temp should be above freezing to 6°C **Correction Factor:** +0.3 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Date and Initials of Person Examining Contents: 5/7/15 BO

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☑ Yes	☐ No	☐ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes ☑ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☑ N/A	13. ☑ HNO_3 ☑ H_2SO_4 ☐ NaOH ☐ HCl Sample # 01-12 Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Kayla Xiong **Date:** May 7, 2015

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

May 26, 2015

Ericka Vallance
Hydrometrics
3020 Bozeman Ave
Helena, MT 59601

RE: Project: FMC RCRA
Pace Project No.: 10305724

Dear Ericka Vallance:
Enclosed are the analytical results for sample(s) received by the laboratory on May 09, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kabor Xiong

Kabor Xiong
kabor.xiong@pacelabs.com
Project Manager

Enclosures

cc: Rob Hartman, MWH Americas, Inc.
Bradly Maddock, FMC
Carrie Ross, FMC
Bruce Wallin, ECCI

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

CERTIFICATIONS

Project: FMC RCRA
Pace Project No.: 10305724

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

SAMPLE SUMMARY

Project: FMC RCRA
Pace Project No.: 10305724

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10305724001	**505BTS**	Water	05/07/15 17:05	05/09/15 09:05

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

SAMPLE ANALYTE COUNT

Project: FMC RCRA
Pace Project No.: 10305724

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10305724001	**505BTS**	EPA 6010	WBS	2	PASI-M
		EPA 6020	RJS	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: **EPA 6010**
Description: 6010 MET ICP
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22770

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305723001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1960678)
  - Fluoride
- MSD (Lab ID: 1960679)
  - Fluoride

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1960678)
  - Chloride
  - Nitrate as N
  - Sulfate
- MSD (Lab ID: 1960679)
  - Chloride
  - Nitrate as N
  - Sulfate

Additional Comments:

Pace Analytical Services, Inc.
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Billings, MT 59101
(406)254-7226

PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22961

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10306104001,10306165002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1971723)
  - Nitrogen, Ammonia

Additional Comments:

Analyte Comments:

QC Batch: WETA/22961

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1971723)
  - Nitrogen, Ammonia
- MSD (Lab ID: 1971724)
  - Nitrogen, Ammonia

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305724

Method: **SM 4500-P E**
Description: Phosphate, Ortho Low Level
Client: FMC
Date: May 26, 2015

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22771

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305629001,10305724001

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1960682)
  - Orthophosphate as P
- MSD (Lab ID: 1960683)
  - Orthophosphate as P

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305724

Sample: 505BTS **Lab ID: 10305724001** Collected: 05/07/15 17:05 Received: 05/09/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/14/15 09:16	05/14/15 12:36	7440-43-9	
Potassium	**5.9**	mg/L	2.5	0.13	1	05/14/15 09:16	05/14/15 12:36	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0044**	mg/L	0.00050	0.00011	1	05/13/15 21:04	05/19/15 12:23	7440-38-2	
Selenium	**0.0010**	mg/L	0.00050	0.00020	1	05/13/15 21:04	05/19/15 12:23	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**30.2**	mg/L	1.2	0.60	1		05/09/15 16:16	16887-00-6	
Fluoride	**0.53**	mg/L	0.050	0.0036	1		05/09/15 16:16	16984-48-8	
Nitrate as N	**2.8**	mg/L	0.10	0.050	1		05/09/15 16:16	14797-55-8	
Sulfate	**59.9**	mg/L	1.2	0.60	1		05/14/15 16:14	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:25	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.73**	mg/L	0.050	0.017	10		05/09/15 13:29		M6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(406)254-7226

QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305724

QC Batch: MPRP/54335
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 10305724001

METHOD BLANK: 1962912 Matrix: Water
Associated Lab Samples: 10305724001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	mg/L	ND	0.0030	05/14/15 12:02	
Potassium	mg/L	ND	2.5	05/14/15 12:02	

LABORATORY CONTROL SAMPLE: 1962913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	1	0.91	91	86-108	
Potassium	mg/L	10	9.1	91	85-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1962914 1962915

Parameter	Units	10305723011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	1	1	0.97	0.99	97	98	83-112	1	20	
Potassium	mg/L	9.9	10	10	18.2	18.9	83	90	82-118	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305724

QC Batch: MPRP/54291 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10305724001

METHOD BLANK: 1961104 Matrix: Water
Associated Lab Samples: 10305724001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	05/19/15 10:19	
Selenium	mg/L	ND	0.00050	05/19/15 10:19	

LABORATORY CONTROL SAMPLE: 1961105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.08	0.081	101	92-110	
Selenium	mg/L	.08	0.081	101	93-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1961106 1961107

Parameter	Units	10305190020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.12	.08	.08	0.21	0.21	102	109	89-114	3	20	
Selenium	mg/L	0.0022	.08	.08	0.081	0.082	98	100	85-117	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305724

QC Batch: WETA/22770
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 10305724001

METHOD BLANK: 1960676 Matrix: Water
Associated Lab Samples: 10305724001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.2	05/09/15 14:56	
Fluoride	mg/L	ND	0.050	05/09/15 14:56	
Nitrate as N	mg/L	ND	0.10	05/09/15 14:56	
Sulfate	mg/L	ND	1.2	05/14/15 13:15	

LABORATORY CONTROL SAMPLE: 1960677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	12.5	12.4	100	90-110	
Fluoride	mg/L	1	0.98	98	90-110	
Nitrate as N	mg/L	1	0.93	93	90-110	
Sulfate	mg/L	12.5	11.8	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960678 1960679

Parameter	Units	10305723001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	544	12.5	12.5	453	481	-732	-506	90-110	6	20	M6
Fluoride	mg/L	1.1	1	1	1.5	1.6	43	49	90-110	4	20	M1
Nitrate as N	mg/L	35.3	1	1	29.6	31.6	-568	-376	90-110	6	20	M6
Sulfate	mg/L	800	125	125	999	999	160	159	90-110	0	20	M6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305724

QC Batch: WETA/22961
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Associated Lab Samples: 10305724001

METHOD BLANK: 1971719 Matrix: Water
Associated Lab Samples: 10305724001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.040	05/21/15 11:03	

LABORATORY CONTROL SAMPLE: 1971720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1971721 1971722

Parameter	Units	10306165002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	<0.050	1	1	1.1	1.1	107	108	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1971723 1971724

Parameter	Units	10306104001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.4	1	1	2.2	2.4	83	101	90-110	8	20	E,M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305724

QC Batch: WETA/22771
QC Batch Method: SM 4500-P E
Analysis Method: SM 4500-P E
Analysis Description: SM4500P-E, Phosphate, Ortho
Associated Lab Samples: 10305724001

METHOD BLANK: 1960680 Matrix: Water
Associated Lab Samples: 10305724001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.0050	05/09/15 13:07	

LABORATORY CONTROL SAMPLE: 1960681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	.1	0.097	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960682 1960683

Parameter	Units	10305724001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	0.73	.1	.1	0.81	0.81	76	77	80-120	0	30	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1960684 1960685

Parameter	Units	10305629001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	0.037	.1	.1	0.13	0.13	97	96	80-120	1	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
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(406)254-7226

QUALIFIERS

Project: FMC RCRA
Pace Project No.: 10305724

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC RCRA
Pace Project No.: 10305724

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10305724001	**505BTS**	EPA 3010	MPRP/54335	EPA 6010	ICP/23779
10305724001	**505BTS**	EPA 3020	MPRP/54291	EPA 6020	ICPM/24324
10305724001	**505BTS**	EPA 300.0	WETA/22770		
10305724001	**505BTS**	EPA 350.1	WETA/22961		
10305724001	**505BTS**	SM 4500-P E	WETA/22771		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

SHORT HOLD

10305724

Page: 1 of

Section A
Required Client Information:

Company:	FMC
Address:	PO BOX 4111
	POCATELLO, ID 83202
Email To:	~~brian.mcginnis@fmc.com~~
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	Ericka Vallance, Hydrometrics
Copy To:	Rob Hartman, MWH
	Bruce Wallin, ECCI
Purchase Order No.:	
Project Name:	FMC
Project Number:	RCRA CERCLA-CALCINER

Section C
Invoice Information:

Attention:	Brian McGinnis
Company Name:	FMC
Address:	PO BOX 4111 POCATELLO ID 83202
Pace Quote Reference:	
Pace Project Manager:	Kabor Xiong
Pace Profile #:	

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505 ~~BTS~~	WT	G	--	--	5/7/15	1705		3	1	1	1						X	X	X				X	X		
2	505	WT	G	--	--																						Fed Ex Air Bill #
3	505	WT	G	--	--																						805816988410
4	505	WT	G	--	--																						
5	505	WT	G	--	--																						
6	505	WT	G	--	--																						
7	505	WT	G	--	--																						
8	505	WT	G	--	--																						
9	505	WT	G	--	--																						
10	505	WT	G	--	--																						
11	505	WT	G	--	--																						
12	505	WT	G	--	--																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**300.0- Cl, SO4, Nitrate, F	Walter Crane / Hydrometrics	5/8/15	13:15		5/9/15	9:05	23	Y	Y	Y
6010: Cadmium, Potassium; 6020: Arsenic, Selenium										
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123										

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Walter Crane				
SIGNATURE of SAMPLER:	Walter Crane — DATE Signed (MM/DD/YY): 05/08/15				

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical®	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: **F-MN-L-213-rev.13**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: FMC

Project #: WO# : 10305724

10305724

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 8067 3847 1614

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other: **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 2.0 **Cooler Temp Corrected (°C):** 2.3 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.3 **Date and Initials of Person Examining Contents:** RH 5/9/15

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked?	☑ Yes	☐ No	☐ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes	☐ No	☐ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 05/11/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

May 26, 2015

Ericka Vallance
Hydrometrics
3020 Bozeman Ave
Helena, MT 59601

RE: Project: FMC RCRA
Pace Project No.: 10305759

Dear Ericka Vallance:
Enclosed are the analytical results for sample(s) received by the laboratory on May 11, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kabor Xiong
kabor.xiong@pacelabs.com
Project Manager

Enclosures

cc: Rob Hartman, MWH Americas, Inc.
Bradly Maddock, FMC
Carrie Ross, FMC
Bruce Wallin, ECCI

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

CERTIFICATIONS

Project: FMC RCRA
Pace Project No.: 10305759

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792
Alaska Certification #: UST-078
Alaska Certification #MN01084
Arizona Department of Health Certification #AZ0785
Minnesota Dept of Health Certification #: 027-137-445
North Dakota Certification: # R-203
Wisconsin DNR Certification # : 998027470
WA Department of Ecology Lab ID# C1007

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

SAMPLE SUMMARY

Project: FMC RCRA
Pace Project No.: 10305759

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10305759001	**505115**	Water	05/06/15 14:55	05/11/15 09:05
10305759002	**505113**	Water	05/06/15 15:35	05/11/15 09:05
10305759003	**505166**	Water	05/06/15 16:50	05/11/15 09:05
10305759004	**505168**	Water	05/06/15 17:50	05/11/15 09:05
10305759005	**505165**	Water	05/06/15 18:35	05/11/15 09:05
10305759006	**505167**	Water	05/07/15 08:00	05/11/15 09:05
10305759007	**505183**	Water	05/07/15 09:10	05/11/15 09:05
10305759008	**505158**	Water	05/07/15 09:55	05/11/15 09:05
10305759009	**505122**	Water	05/07/15 11:05	05/11/15 09:05
10305759010	**505123ABC**	Water	05/07/15 12:00	05/11/15 09:05
10305759013	**505155**	Water	05/07/15 13:10	05/11/15 09:05
10305759014	**505701**	Water	05/07/15 14:00	05/11/15 09:05
10305759015	**505156**	Water	05/07/15 15:05	05/11/15 09:05
10305759016	**505157ABC**	Water	05/07/15 15:50	05/11/15 09:05
10305759017	**505104**	Water	05/07/15 14:20	05/11/15 09:05
10305759020	**505601**	Water	05/07/15 15:30	05/11/15 09:05

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SAMPLE ANALYTE COUNT

Project: FMC RCRA
Pace Project No.: 10305759

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10305759001	**505115**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759002	**505113**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759003	**505166**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759004	**505168**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759005	**505165**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759006	**505167**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759007	**505183**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759008	**505158**	EPA 6010	IP	2	PASI-M

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SAMPLE ANALYTE COUNT

Project: FMC RCRA
Pace Project No.: 10305759

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759009	**505122**	EPA 6010	IP	2	PASI-M
		EPA 6010	MAR	1	PASI-V
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759010	**505123ABC**	EPA 6010	IP	2	PASI-M
		EPA 6010	MAR	1	PASI-V
		EPA 6020	RAG	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759013	**505155**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759014	**505701**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759015	**505156**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759016	**505157ABC**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M

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SAMPLE ANALYTE COUNT

Project: FMC RCRA
Pace Project No.: 10305759

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759017	**505104**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10305759020	**505601**	EPA 6010	IP	2	PASI-M
		EPA 6020	RAG	2	PASI-M
		SM 4500F/C	JFP	1	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **EPA 6010**
Description: 6010 MET ICP
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/54323

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305759010,10305759016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1963716)
  - Potassium

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **SM 4500F/C**
Description: SM4500F-C Fluoride
Client: FMC
Date: May 26, 2015

General Information:
6 samples were analyzed for SM 4500F/C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: WET/41829

B: Analyte was detected in the associated method blank.

- BLANK for HBN 355002 [WET/4182 (Lab ID: 1968130)
  - Fluoride

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22789

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305759010,10305759016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1961704)
  - Chloride
  - Fluoride
  - Nitrate as N
- MSD (Lab ID: 1961705)
  - Chloride
  - Fluoride
  - Nitrate as N
- MSD (Lab ID: 1961707)
  - Nitrate as N

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1961706)
  - Fluoride
- MSD (Lab ID: 1961707)
  - Fluoride

R1: RPD value was outside control limits.

- MSD (Lab ID: 1961707)
  - Fluoride

Additional Comments:

Pace Analytical Services, Inc.
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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: May 26, 2015

Analyte Comments:

QC Batch: WETA/22789

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1961704)
  - Sulfate
- MSD (Lab ID: 1961705)
  - Sulfate

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/22962

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10305759010,10305759016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1971729)
  - Nitrogen, Ammonia
- MSD (Lab ID: 1971728)
  - Nitrogen, Ammonia
- MSD (Lab ID: 1971730)
  - Nitrogen, Ammonia

Additional Comments:

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PROJECT NARRATIVE

Project: FMC RCRA
Pace Project No.: 10305759

Method: **SM 4500-P E**
Description: Phosphate, Ortho Low Level
Client: FMC
Date: May 26, 2015

General Information:
16 samples were analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- 505104 (Lab ID: 10305759017)
- 505113 (Lab ID: 10305759002)
- 505115 (Lab ID: 10305759001)
- 505122 (Lab ID: 10305759009)
- 505123ABC (Lab ID: 10305759010)
- 505155 (Lab ID: 10305759013)
- 505156 (Lab ID: 10305759015)
- 505157ABC (Lab ID: 10305759016)
- 505158 (Lab ID: 10305759008)
- 505165 (Lab ID: 10305759005)
- 505166 (Lab ID: 10305759003)
- 505167 (Lab ID: 10305759006)
- 505168 (Lab ID: 10305759004)
- 505183 (Lab ID: 10305759007)
- 505601 (Lab ID: 10305759020)
- 505701 (Lab ID: 10305759014)

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505115 **Lab ID: 10305759001** Collected: 05/06/15 14:55 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 02:47	7440-43-9	
Potassium	**14.0**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 02:47	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.24**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:26	7440-38-2	
Selenium	**0.0041**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:26	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.18J**	mg/L	1.0	0.051	1		05/17/15 13:06	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**141**	mg/L	12.0	6.0	10		05/11/15 22:48	16887-00-6	
Fluoride	**1.0**	mg/L	0.050	0.0036	1		05/11/15 16:12	16984-48-8	
Nitrate as N	**63.6**	mg/L	1.0	0.50	10		05/11/15 22:48	14797-55-8	
Sulfate	**337**	mg/L	12.0	6.0	10		05/11/15 22:48	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:34	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**2.7**	mg/L	0.10	0.035	20		05/12/15 11:21		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505113 **Lab ID: 10305759002** Collected: 05/06/15 15:35 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 02:54	7440-43-9	
Potassium	**17.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 02:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.027**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:29	7440-38-2	
Selenium	**0.0037**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:29	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**117**	mg/L	6.0	3.0	5		05/11/15 23:05	16887-00-6	
Fluoride	**0.43**	mg/L	0.050	0.0036	1		05/11/15 16:42	16984-48-8	
Nitrate as N	**8.2**	mg/L	0.50	0.25	5		05/11/15 23:05	14797-55-8	
Sulfate	**87.0**	mg/L	1.2	0.60	1		05/11/15 16:42	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:35	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.22**	mg/L	0.010	0.0035	2		05/12/15 11:21		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505166 **Lab ID: 10305759003** Collected: 05/06/15 16:50 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 02:59	7440-43-9	
Potassium	**31.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 02:59	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.018**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:32	7440-38-2	
Selenium	**0.0060**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:32	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**234**	mg/L	12.0	6.0	10		05/11/15 23:23	16887-00-6	
Fluoride	**0.64**	mg/L	0.050	0.0036	1		05/11/15 16:58	16984-48-8	
Nitrate as N	**38.0**	mg/L	1.0	0.50	10		05/11/15 23:23	14797-55-8	
Sulfate	**203**	mg/L	12.0	6.0	10		05/11/15 23:23	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:36	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.30**	mg/L	0.010	0.0035	2		05/12/15 11:22		H3

REPORT OF LABORATORY ANALYSIS

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(406)254-7226

ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505168 **Lab ID: 10305759004** Collected: 05/06/15 17:50 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:05	7440-43-9	
Potassium	**16.6**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:05	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.022**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:35	7440-38-2	
Selenium	**0.076**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:35	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**53.7**	mg/L	1.2	0.60	1		05/11/15 17:13	16887-00-6	
Fluoride	**3.5**	mg/L	0.50	0.036	10		05/11/15 23:40	16984-48-8	
Nitrate as N	**20.6**	mg/L	1.0	0.50	10		05/11/15 23:40	14797-55-8	
Sulfate	**1350**	mg/L	24.0	12.0	20		05/14/15 05:10	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.41**	mg/L	0.040	0.020	1		05/21/15 11:37	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.095**	mg/L	0.0050	0.0017	1		05/12/15 11:01		H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505165 **Lab ID: 10305759005** Collected: 05/06/15 18:35 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:12	7440-43-9	
Potassium	**14.5**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:12	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.023**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:38	7440-38-2	
Selenium	**0.0085**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:38	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**365**	mg/L	6.0	3.0	5		05/14/15 05:28	16887-00-6	
Fluoride	**0.20**	mg/L	0.050	0.0036	1		05/11/15 17:28	16984-48-8	
Nitrate as N	**5.7**	mg/L	0.10	0.050	1		05/11/15 17:28	14797-55-8	
Sulfate	**232**	mg/L	6.0	3.0	5		05/14/15 05:28	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:38	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.28**	mg/L	0.010	0.0035	2		05/12/15 11:23		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505167 **Lab ID: 10305759006** Collected: 05/07/15 08:00 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:19	7440-43-9	
Potassium	**12.6**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:19	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.046**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:40	7440-38-2	
Selenium	**0.0022**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:40	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**133**	mg/L	6.0	3.0	5		05/14/15 05:46	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/11/15 17:43	16984-48-8	
Nitrate as N	**0.14**	mg/L	0.10	0.050	1		05/11/15 17:43	14797-55-8	
Sulfate	**141**	mg/L	6.0	3.0	5		05/14/15 05:46	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:39	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**4.4**	mg/L	0.25	0.087	50		05/12/15 11:34		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505183 **Lab ID: 10305759007** Collected: 05/07/15 09:10 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:25	7440-43-9	
Potassium	**12.7**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:25	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.014**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:43	7440-38-2	
Selenium	**0.0060**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:43	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**104**	mg/L	6.0	3.0	5		05/14/15 06:03	16887-00-6	
Fluoride	**0.34**	mg/L	0.050	0.0036	1		05/11/15 17:58	16984-48-8	
Nitrate as N	**1.9**	mg/L	0.10	0.050	1		05/11/15 17:58	14797-55-8	
Sulfate	**211**	mg/L	6.0	3.0	5		05/14/15 06:03	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:41	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.053**	mg/L	0.0050	0.0017	1		05/12/15 11:03		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505158 **Lab ID: 10305759008** Collected: 05/07/15 09:55 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:40	7440-43-9	
Potassium	**19.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:40	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.011**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:46	7440-38-2	
Selenium	**0.0054**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:46	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**97.2**	mg/L	12.0	6.0	10		05/14/15 06:21	16887-00-6	
Fluoride	**0.17**	mg/L	0.050	0.0036	1		05/11/15 18:58	16984-48-8	
Nitrate as N	**2.9**	mg/L	0.10	0.050	1		05/11/15 18:58	14797-55-8	
Sulfate	**545**	mg/L	12.0	6.0	10		05/14/15 06:21	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:43	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.082**	mg/L	0.0050	0.0017	1		05/12/15 11:04		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505122 **Lab ID: 10305759009** Collected: 05/07/15 11:05 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Phosphorus	**10200**	ug/L	250	12.9	1	05/14/15 15:58	05/19/15 10:24	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:47	7440-43-9	
Potassium	**131**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:47	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.051**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:55	7440-38-2	
Selenium	**0.0094**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:55	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**301**	mg/L	6.0	3.0	5		05/11/15 23:58	16887-00-6	
Fluoride	**0.060**	mg/L	0.050	0.0036	1		05/11/15 19:14	16984-48-8	
Nitrate as N	**18.6**	mg/L	0.50	0.25	5		05/11/15 23:58	14797-55-8	
Sulfate	**333**	mg/L	6.0	3.0	5		05/11/15 23:58	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:43	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**7.4**	mg/L	0.25	0.087	50		05/12/15 11:25		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505123ABC **Lab ID: 10305759010** Collected: 05/07/15 12:00 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Phosphorus	**571**	ug/L	250	12.9	1	05/14/15 15:58	05/19/15 10:27	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 03:54	7440-43-9	
Potassium	**25.1**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 03:54	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.18**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 13:58	7440-38-2	
Selenium	**0.16**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 13:58	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.86J**	mg/L	1.0	0.051	1		05/17/15 13:12	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**92.0**	mg/L	1.2	0.60	1		05/11/15 19:29	16887-00-6	M1
Fluoride	**0.98**	mg/L	0.050	0.0036	1		05/11/15 19:29	16984-48-8	M1
Nitrate as N	**2.8**	mg/L	0.10	0.050	1		05/11/15 19:29	14797-55-8	M1
Sulfate	**467**	mg/L	6.0	3.0	5		05/14/15 06:38	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**3.7**	mg/L	0.20	0.10	5		05/21/15 13:44	7664-41-7	M1
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.50**	mg/L	0.025	0.0087	5		05/12/15 11:26		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505155 **Lab ID: 10305759013** Collected: 05/07/15 13:10 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:22	7440-43-9	
Potassium	**427**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 04:22	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.098**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:12	7440-38-2	
Selenium	**0.0064**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:12	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.22J**	mg/L	1.0	0.051	1		05/17/15 13:31	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**167**	mg/L	6.0	3.0	5		05/14/15 07:57	16887-00-6	
Fluoride	**0.017J**	mg/L	0.050	0.0036	1		05/11/15 20:14	16984-48-8	
Nitrate as N	**6.8**	mg/L	0.10	0.050	1		05/11/15 20:14	14797-55-8	
Sulfate	**223**	mg/L	6.0	3.0	5		05/14/15 07:57	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.51**	mg/L	0.040	0.020	1		05/21/15 11:47	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**14.3**	mg/L	0.50	0.17	100		05/12/15 11:30		H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Billings, MT 59101
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505701 **Lab ID: 10305759014** Collected: 05/07/15 14:00 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:37	7440-43-9	
Potassium	ND	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 04:37	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.00029J**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:15	7440-38-2	
Selenium	ND	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:15	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		05/11/15 20:29	16887-00-6	
Fluoride	ND	mg/L	0.050	0.0036	1		05/11/15 20:29	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/11/15 20:29	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		05/11/15 20:29	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		05/21/15 11:48	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.017**	mg/L	0.0050	0.0017	1		05/12/15 11:11		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505156 **Lab ID: 10305759015** Collected: 05/07/15 15:05 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:41	7440-43-9	
Potassium	**1160**	mg/L	12.5	0.63	5	05/19/15 09:00	05/21/15 08:07	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.14**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:18	7440-38-2	
Selenium	**0.00059**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:18	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.23J**	mg/L	1.0	0.051	1		05/17/15 13:34	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**317**	mg/L	12.0	6.0	10		05/14/15 08:14	16887-00-6	
Fluoride	**36.5**	mg/L	2.5	0.18	50		05/14/15 09:34	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/11/15 20:44	14797-55-8	
Sulfate	**226**	mg/L	12.0	6.0	10		05/14/15 08:14	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**11.0**	mg/L	0.040	0.020	1		05/21/15 11:48	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**139**	mg/L	5.0	1.7	1000		05/12/15 11:32		H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Billings, MT 59101
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505157ABC **Lab ID: 10305759016** Collected: 05/07/15 15:50 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 04:47	7440-43-9	
Potassium	**303**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 04:47	7440-09-7	M1
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.095**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:30	7440-38-2	
Selenium	**0.00032J**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:30	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.30J**	mg/L	1.0	0.051	1		05/17/15 13:52	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**228**	mg/L	12.0	6.0	10		05/14/15 08:31	16887-00-6	
Fluoride	**32.4**	mg/L	2.5	0.18	50		05/14/15 09:56	16984-48-8	M6,R1
Nitrate as N	**0.056J**	mg/L	0.10	0.050	1		05/11/15 20:59	14797-55-8	M1
Sulfate	**261**	mg/L	12.0	6.0	10		05/14/15 08:31	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**2.5**	mg/L	0.080	0.040	2		05/21/15 13:47	7664-41-7	M1
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**36.6**	mg/L	2.5	0.87	500		05/12/15 11:34		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505104 **Lab ID: 10305759017** Collected: 05/07/15 14:20 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 05:15	7440-43-9	
Potassium	**209**	mg/L	2.5	0.13	1	05/19/15 09:00	05/21/15 05:15	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.036**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:45	7440-38-2	
Selenium	**0.0035**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:45	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**115**	mg/L	6.0	3.0	5		05/12/15 00:16	16887-00-6	
Fluoride	**3.1**	mg/L	0.25	0.018	5		05/12/15 00:16	16984-48-8	
Nitrate as N	**21.5**	mg/L	0.50	0.25	5		05/12/15 00:16	14797-55-8	
Sulfate	**138**	mg/L	6.0	3.0	5		05/12/15 00:16	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**3.3**	mg/L	0.080	0.040	2		05/21/15 13:51	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**1.1**	mg/L	0.050	0.017	10		05/12/15 11:31		H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: FMC RCRA
Pace Project No.: 10305759

Sample: 505601 **Lab ID: 10305759020** Collected: 05/07/15 15:30 Received: 05/11/15 09:05 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Cadmium	ND	mg/L	0.0030	0.00065	1	05/19/15 09:00	05/21/15 05:21	7440-43-9	
Potassium	**1130**	mg/L	12.5	0.63	5	05/19/15 09:00	05/21/15 08:12	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.14**	mg/L	0.00050	0.00011	1	05/18/15 07:41	05/19/15 14:48	7440-38-2	
Selenium	**0.00072**	mg/L	0.00050	0.00020	1	05/18/15 07:41	05/19/15 14:48	7782-49-2	
SM4500F-C Fluoride	Analytical Method: SM 4500F/C								
Fluoride	**0.18J**	mg/L	1.0	0.051	1		05/17/15 14:04	16984-48-8	B
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**313**	mg/L	12.0	6.0	10		05/14/15 09:19	16887-00-6	
Fluoride	**37.2**	mg/L	2.5	0.18	50		05/14/15 13:00	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		05/11/15 22:15	14797-55-8	
Sulfate	**222**	mg/L	12.0	6.0	10		05/14/15 09:19	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**10.9**	mg/L	0.80	0.40	20		05/21/15 13:53	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**122**	mg/L	5.0	1.7	1000		05/12/15 11:33		H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305759

QC Batch: MPRP/5361 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 10305759009, 10305759010

METHOD BLANK: 208787 Matrix: Water
Associated Lab Samples: 10305759009, 10305759010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	ug/L	ND	250	05/19/15 08:56	

LABORATORY CONTROL SAMPLE: 208788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	ug/L	5000	5040	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208789 208790

Parameter	Units	10305723011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	ug/L	25.9J	5000	5000	5100	5130	101	102	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208791 208792

Parameter	Units	10305759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	ug/L	571	5000	5000	5770	5780	104	104	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305759

QC Batch: MPRP/54323 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

METHOD BLANK: 1962300 Matrix: Water
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	mg/L	ND	0.0030	05/21/15 02:39	
Potassium	mg/L	ND	2.5	05/21/15 02:39	

LABORATORY CONTROL SAMPLE: 1962301

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	1	0.94	94	86-108	
Potassium	mg/L	10	9.3	93	85-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1963713 1963714

Parameter	Units	10305759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	1	1	0.95	0.95	95	95	83-112	0	20	
Potassium	mg/L	25.1	10	10	35.2	34.8	101	97	82-118	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1963715 1963716

Parameter	Units	10305759016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	1	1	0.96	0.94	96	94	83-112	2	20	
Potassium	mg/L	303	10	10	314	310	103	69	82-118	1	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305759

QC Batch: MPRP/54322 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

METHOD BLANK: 1962296 Matrix: Water
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	05/19/15 13:20	
Selenium	mg/L	ND	0.00050	05/19/15 13:20	

LABORATORY CONTROL SAMPLE: 1962297

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.08	0.078	98	92-110	
Selenium	mg/L	.08	0.083	104	93-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1963709 1963710

Parameter	Units	10305759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.18	.08	.08	0.25	0.25	93	99	89-114	2	20	
Selenium	mg/L	0.16	.08	.08	0.25	0.25	108	110	85-117	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1963711 1963712

Parameter	Units	10305759016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.095	.08	.08	0.17	0.17	98	97	89-114	0	20	
Selenium	mg/L	0.00032J	.08	.08	0.083	0.082	103	103	85-117	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305759

QC Batch: WET/41829 Analysis Method: SM 4500F/C
QC Batch Method: SM 4500F/C Analysis Description: SM4500F-C Fluoride
Associated Lab Samples: 10305759001, 10305759010, 10305759013, 10305759015, 10305759016, 10305759020

METHOD BLANK: 1968130 Matrix: Water
Associated Lab Samples: 10305759001, 10305759010, 10305759013, 10305759015, 10305759016, 10305759020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	0.14J	1.0	05/17/15 12:47	

LABORATORY CONTROL SAMPLE: 1968131

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1968132 1968133

Parameter	Units	10305759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.86J	5	5	6.0	6.2	103	107	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1968134 1968135

Parameter	Units	10305759016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.30J	5	5	5.4	5.5	102	104	80-120	2	20	

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305759

QC Batch: WETA/22789 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

METHOD BLANK: 1961702 Matrix: Water
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.2	05/11/15 18:13	
Fluoride	mg/L	ND	0.050	05/11/15 18:13	
Nitrate as N	mg/L	ND	0.10	05/11/15 18:13	
Sulfate	mg/L	ND	1.2	05/11/15 18:13	

LABORATORY CONTROL SAMPLE: 1961703

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	12.5	12.4	99	90-110	
Fluoride	mg/L	1	0.98	98	90-110	
Nitrate as N	mg/L	1	0.92	92	90-110	
Sulfate	mg/L	12.5	11.9	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1961704 1961705

Parameter	Units	10305759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	92.0	12.5	12.5	92.7	93.3	5	10	90-110	1	20	M1
Fluoride	mg/L	0.98	1	1	1.8	1.8	81	81	90-110	0	20	M1
Nitrate as N	mg/L	2.8	1	1	3.5	3.5	67	69	90-110	1	20	M1
Sulfate	mg/L	467	62.5	62.5	529	529	98	99	90-110	0	20	E

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1961706 1961707

Parameter	Units	10305759016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	228	125	125	359	360	105	106	90-110	0	20	
Fluoride	mg/L	32.4	10	10	18.1	24.7	-143	-77	90-110	31	20	M6,R1
Nitrate as N	mg/L	0.056J	1	1	0.96	0.94	90	88	90-110	2	20	M1
Sulfate	mg/L	261	125	125	399	399	110	110	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305759

QC Batch: WETA/22962 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

METHOD BLANK: 1971725 Matrix: Water
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.040	05/21/15 11:32	

LABORATORY CONTROL SAMPLE: 1971726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.1	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1971727 1971728

Parameter	Units	10305759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	3.7	1	1	4.6	4.8	96	114	90-110	4	20	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1971729 1971730

Parameter	Units	10305759016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	2.5	1	1	3.6	3.6	113	117	90-110	1	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FMC RCRA
Pace Project No.: 10305759

QC Batch: WETA/22788 Analysis Method: SM 4500-P E
QC Batch Method: SM 4500-P E Analysis Description: SM4500P-E, Phosphate, Ortho
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

METHOD BLANK: 1961687 Matrix: Water
Associated Lab Samples: 10305759001, 10305759002, 10305759003, 10305759004, 10305759005, 10305759006, 10305759007, 10305759008, 10305759009, 10305759010, 10305759013, 10305759014, 10305759015, 10305759016, 10305759017, 10305759020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.0050	05/12/15 11:20	

LABORATORY CONTROL SAMPLE: 1961688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	.1	0.096	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1961689 1961690

Parameter	Units	10305759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	0.50	.5	.5	1.0	1.0	102	103	80-120	0	30	H3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1961691 1961692

Parameter	Units	10305759016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	36.6	50	50	89.0	89.5	105	106	80-120	1	30	H3

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: FMC RCRA
Pace Project No.: 10305759

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis
PASI-V	Pace Analytical Services - Virginia

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC RCRA
Pace Project No.: 10305759

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10305759001	**505115**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759002	**505113**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759003	**505166**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759004	**505168**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759005	**505165**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759006	**505167**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759007	**505183**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759008	**505158**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759009	**505122**	EPA 3010	MPRP/5361	EPA 6010	ICP/4267
10305759009	**505122**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759010	**505123ABC**	EPA 3010	MPRP/5361	EPA 6010	ICP/4267
10305759010	**505123ABC**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759013	**505155**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759014	**505701**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759015	**505156**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759016	**505157ABC**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759017	**505104**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759020	**505601**	EPA 3010	MPRP/54323	EPA 6010	ICP/23814
10305759001	**505115**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759002	**505113**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759003	**505166**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759004	**505168**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759005	**505165**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759006	**505167**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759007	**505183**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759008	**505158**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759009	**505122**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759010	**505123ABC**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759013	**505155**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759014	**505701**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759015	**505156**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759016	**505157ABC**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759017	**505104**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759020	**505601**	EPA 3020	MPRP/54322	EPA 6020	ICPM/24338
10305759001	**505115**	SM 4500F/C	WET/41829		
10305759010	**505123ABC**	SM 4500F/C	WET/41829		
10305759013	**505155**	SM 4500F/C	WET/41829		
10305759015	**505156**	SM 4500F/C	WET/41829		
10305759016	**505157ABC**	SM 4500F/C	WET/41829		
10305759020	**505601**	SM 4500F/C	WET/41829		
10305759001	**505115**	EPA 300.0	WETA/22789		
10305759002	**505113**	EPA 300.0	WETA/22789		
10305759003	**505166**	EPA 300.0	WETA/22789		
10305759004	**505168**	EPA 300.0	WETA/22789		
10305759005	**505165**	EPA 300.0	WETA/22789		

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FMC RCRA
Pace Project No.: 10305759

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10305759006	**505167**	EPA 300.0	WETA/22789		
10305759007	**505183**	EPA 300.0	WETA/22789		
10305759008	**505158**	EPA 300.0	WETA/22789		
10305759009	**505122**	EPA 300.0	WETA/22789		
10305759010	**505123ABC**	EPA 300.0	WETA/22789		
10305759013	**505155**	EPA 300.0	WETA/22789		
10305759014	**505701**	EPA 300.0	WETA/22789		
10305759015	**505156**	EPA 300.0	WETA/22789		
10305759016	**505157ABC**	EPA 300.0	WETA/22789		
10305759017	**505104**	EPA 300.0	WETA/22789		
10305759020	**505601**	EPA 300.0	WETA/22789		
10305759001	**505115**	EPA 350.1	WETA/22962		
10305759002	**505113**	EPA 350.1	WETA/22962		
10305759003	**505166**	EPA 350.1	WETA/22962		
10305759004	**505168**	EPA 350.1	WETA/22962		
10305759005	**505165**	EPA 350.1	WETA/22962		
10305759006	**505167**	EPA 350.1	WETA/22962		
10305759007	**505183**	EPA 350.1	WETA/22962		
10305759008	**505158**	EPA 350.1	WETA/22962		
10305759009	**505122**	EPA 350.1	WETA/22962		
10305759010	**505123ABC**	EPA 350.1	WETA/22962		
10305759013	**505155**	EPA 350.1	WETA/22962		
10305759014	**505701**	EPA 350.1	WETA/22962		
10305759015	**505156**	EPA 350.1	WETA/22962		
10305759016	**505157ABC**	EPA 350.1	WETA/22962		
10305759017	**505104**	EPA 350.1	WETA/22962		
10305759020	**505601**	EPA 350.1	WETA/22962		
10305759001	**505115**	SM 4500-P E	WETA/22788		
10305759002	**505113**	SM 4500-P E	WETA/22788		
10305759003	**505166**	SM 4500-P E	WETA/22788		
10305759004	**505168**	SM 4500-P E	WETA/22788		
10305759005	**505165**	SM 4500-P E	WETA/22788		
10305759006	**505167**	SM 4500-P E	WETA/22788		
10305759007	**505183**	SM 4500-P E	WETA/22788		
10305759008	**505158**	SM 4500-P E	WETA/22788		
10305759009	**505122**	SM 4500-P E	WETA/22788		
10305759010	**505123ABC**	SM 4500-P E	WETA/22788		
10305759013	**505155**	SM 4500-P E	WETA/22788		
10305759014	**505701**	SM 4500-P E	WETA/22788		
10305759015	**505156**	SM 4500-P E	WETA/22788		
10305759016	**505157ABC**	SM 4500-P E	WETA/22788		
10305759017	**505104**	SM 4500-P E	WETA/22788		
10305759020	**505601**	SM 4500-P E	WETA/22788		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305759

Page: 1 of 2

Section A Required Client Information:

Company:	FMC
Address:	PO BOX 4111
	POCATELLO, ID 83202
Email To:	brian.mcginnis@fmc.com
Phone:	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Ericka Vallance, Hydrometrics
Copy To:	Rob Hartman, MWH
	Bruce Wallin, ECCI
Purchase Order No.:	
Project Name:	FMC
Project Number:	RCRA-CERCLA-CALCINER

Section C Invoice Information:

Attention:	Brian McGinnis
Company Name:	FMC
Address:	PO BOX 4111 POCATELLO ID 83202
Pace Quote Reference:	
Pace Project Manager:	Kabor Xiong
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~End 1st~~ 505 ~~114~~						1830		4	2	1							X	X	X	X		X	X		Fed Ex Air Bill #
2	End 505 112	WT	G	--	--		1830		4	2	1										X					End 1st RCRA SDG
3	Start 2nd 505 115	WT	G	--	--	5/6/15	1455		3	1								X	X	X	X		X	X	Start of 2nd	" " 001
4	RCRA SDG 505 113	WT	G	--	--	5/6/15	1535		3	1																805816988497 002
5	505 166	WT	G	--	--	5/6/15	1650		3	1																003
6	505 168	WT	G	--	--		1750		3	1																004
7	505 165	WT	G	--	--		1835		3	1																005
8	505 167	WT	G	--	--	5/7/15	0800		3	1																006
9	505 183	WT	G	--	--		0910		3	1																007
10	505 158	WT	G	--	--		0955		3	1																008
11	505 122	WT	G	--	--		1105		4	1		2										X				009
12	505 123A	WT	G	--	--		1200		5	2		2										X	X			010

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**300.0- Cl, SO4, Nitrate, F	Walter Crowe / Hydrometrics	5/7/15	16:40	PACE	5/11/15	0925				
6010: Cadmium, Potassium; 6020: Arsenic, Selenium						0905	4.8	Y	Y	Y
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123							6.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Walter Crowe					
SIGNATURE of SAMPLER:	Walter Crowe	DATE Signed (MM/DD/YY): 05/15				

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10305759

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	FMC	Report To:	Ericka Vallance, Hydrometrics	Attention:	Brian McGinnis
Address:	PO BOX 4111	Copy To:	Rob Hartman, MWH	Company Name:	FMC
	POCATELLO, ID 83202		Bruce Wallin, ECCI	Address:	PO BOX 4111 POCATELLO ID 83202
Email To:	brian.mcginnis@fmc.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	FMC	Pace Project Manager:	Kabor Xiong
Requested Due Date/TAT:		Project Number:	RCRA CERCLA-CALCINER	Pace Profile #:	

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☑ RCRA ☐ OTHER

Site Location STATE: ID

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N ↓	300.0IC **	TOTAL METALS 6020	TOTAL METALS 6010	FLUORIDE (ISE)	TOTAL PHOSPHORUS	Ammonia	Ortho Phosphorus	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	505 123B	WT	G	--	--	5/7/15	1200		5	2	1	2							X	X	X	X	X	X	X		Fed Ex Air Bill # 011
2	505 123C	WT	G	--	--		1200		5	2	1	2											X	X			805816988501 012
3	505 155	WT	G	--	--		1310		5	3	1	1											2				013
4	505 701	WT	G	--	--		1400		3	1	1	1															014
5	505 156	WT	G	--	--		1505		5	3	1	1											2				015
6	505 157A	WT	G	--	--		1550		5	3	1	1											2				016
7	505 104	WT	G	--	--		1420		3	1	1	1															017
8	505 157B	WT	G	--	--		1550		4	2	1	1											X				018
9	505 157C	WT	G	--	--		1550		4	2	1	1											X				019
10	505 601	WT	G	--	--		1530		4	2	1	1											X				020
11	505	WT	G	--	--																						
12	505	WT	G	--	--																						

Extra for lab split

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**300.0- Cl, SO4, Nitrate, F	Walter Crane / Hydrometrics	5/7/15	16:40	PACE	5/11/15	0905	6.0	Y	Y	Y
6010 Cadmium, Potassium; 6020: Arsenic, Selenium							4.8	Y	Y	Y
Total Phos sub to Pace-VM by 6010 only on wells 108, 121, 122 & 123										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Walter Crane

SIGNATURE of SAMPLER: Walter Crane DATE Signed (MM/DD/YY): 05/07/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: **F-MN-L-213-rev.13**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: FMC **Project #:**

WO# : 10305759

10305759

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 8058 1698 8501, 8058 1698 8497

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other: PB **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☑ B88A0143310098 **Type of Ice:** ☐ Wet ☐ Blue ☐ None ☑ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 4.5, 5.5 **Cooler Temp Corrected (°C):** 4.8, 6.0 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.3, +0.5 **Date and Initials of Person Examining Contents:** KhS 5/11/15

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time? KhS/11	~~☑ Yes~~	~~☑ No~~	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☑ Yes	☐ No	☐ N/A	13. ☑ HNO_3 ☑ H_2SO_4 ☐ NaOH ☐ HCl Sample # 1-8, 11, 13-20, 1-20, 9-12 2/2
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☑ No	☐ N/A	Still not in compliance (505601)
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: Kh Lot # of added preservative: 1114110
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Kevin Xiang **Date:** May 12, 2015

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Chain of Custody

Workorder: 10305759 **Workorder Name:** FMC RCRA **Owner Received Date:** 5/11/2015 **Results Requested By:** 5/26/2015

Report to	Subcontract to
Kabor Xiong Pace Analytical Services, Inc. 1700 Elm Street, Suite 200 Minneapolis, MN 55414 Phone (612)607-1700 Fax (612)607-6444	Pace Analytical Virginia MN 315 Chestnut Street Virginia, MN 55792 Phone (218)742-1042

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HNO3	Requested Analysis: XLT. pres by 6010	LAB USE ONLY
1	505122	PS	5/7/2015 11:05	10305759009	Water	1	X	009
2	505123ABC	RQS	5/7/2015 12:00	10305759010	Water	2	X	010
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	5/11/15	[signature]	5/12/15 1845
2	[signature]	5/12/15 2120	[signature]	5/13/15 0751
3				

Comments: L4 Data pkg needed - due 6/1/15

Cooler Temperature on Receipt 1.9 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical®	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-VM-C-001-Rev.09	Issuing Authority: Pace Virginia, Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Pace-MN

Project #: WO#: 1246918

1246918

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other: _____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☐ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: _____ **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☑ 140792808 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☑ Samples on ice, cooling process has begun

Cooler Temp Read °C: 1.9 **Cooler Temp Corrected °C:** 2.2 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ NA

Temp should be above freezing to 6°C Correction Factor: +0.3 **Date and Initials of Person Examining Contents:** JPE 5/12/15

Comments: 5/13/15 TK

Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and Signature on COC?	☐ Yes	☐ No	☑ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation will be checked and documented in the pH logbook.	☑ Yes	☐ No	☐ N/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	☐ Yes	☐ No	☑ N/A	13.
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased): _____				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

FECAL WAIVER ON FILE Y N TEMPERATURE WAIVER ON FILE Y N

Project Manager Review: Heather Zea **Date:** 5/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

July 14, 2015

Ericka Vallance
Hydrometrics
3020 Bozeman Ave
Helena, MT 59601

RE: Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Dear Ericka Vallance:
Enclosed are the analytical results for sample(s) received by the laboratory on June 27, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report was revised on July 14, 2015 to correct Metals (6010) units from ug/L to mg/L.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kabor Xiong
kabor.xiong@pacelabs.com
Project Manager

Enclosures

cc: Rob Hartman, MWH Americas, Inc.
Bradly Maddock, FMC
Carrie Ross, FMC
Bruce Wallin, ECCI

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

CERTIFICATIONS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792
Alaska Certification #: UST-078
Alaska Certification #MN01084
Arizona Department of Health Certification #AZ0785
Minnesota Dept of Health Certification #: 027-137-445
North Dakota Certification: # R-203
Wisconsin DNR Certification # : 998027470
WA Department of Ecology Lab ID# C1007

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

SAMPLE SUMMARY

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10312267001	**505121A**	Water	06/26/15 09:05	06/27/15 09:15
10312267002	**505604**	Water	06/26/15 09:30	06/27/15 09:15
10312267003	**505108A(ABC)**	Water	06/26/15 10:05	06/27/15 09:15
10312267006	**5051704**	Water	06/26/15 10:30	06/27/15 09:15

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SAMPLE ANALYTE COUNT

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10312267001	**505121A**	EPA 6010	DM, WBS	2	PASI-M
		EPA 6010C	MAR	1	PASI-V
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10312267002	**505604**	EPA 6010	DM, WBS	2	PASI-M
		EPA 6010C	MAR	1	PASI-V
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10312267003	**505108A(ABC)**	EPA 6010	DM, WBS	2	PASI-M
		EPA 6010C	MAR	1	PASI-V
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M
10312267006	**5051704**	EPA 6010	WBS	2	PASI-M
		EPA 6010C	MAR	1	PASI-V
		EPA 6020	RAG	2	PASI-M
		EPA 300.0	KEO	4	PASI-M
		EPA 350.1	PH1	1	PASI-M
		SM 4500-P E	PH1	1	PASI-M

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PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: **EPA 6010**
Description: 6010 MET ICP
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: **EPA 6010C**
Description: 6010C MET ICP
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/23586

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10312024001,10312267003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2008732)
  - Fluoride
- MSD (Lab ID: 2008733)
  - Fluoride

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 2008732)
  - Chloride
  - Nitrate as N
  - Sulfate
- MSD (Lab ID: 2008733)
  - Chloride
  - Nitrate as N
  - Sulfate

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Method: **SM 4500-P E**
Description: Phosphate, Ortho Low Level
Client: FMC
Date: July 14, 2015

General Information:
4 samples were analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 505121A **Lab ID: 10312267001** Collected: 06/26/15 09:05 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	**0.72**	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 09:17	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 18:38	7440-43-9	
Potassium	**56.2**	mg/L	12.5	0.63	5	06/30/15 12:26	07/01/15 10:05	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0089**	mg/L	0.00050	0.00011	1	07/02/15 14:33	07/07/15 12:29	7440-38-2	
Selenium	**0.014**	mg/L	0.00050	0.00020	1	07/02/15 14:33	07/07/15 12:29	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**482**	mg/L	12.0	6.0	10		06/28/15 01:37	16887-00-6	
Fluoride	**0.18**	mg/L	0.050	0.0036	1		06/27/15 14:57	16984-48-8	
Nitrate as N	**19.2**	mg/L	1.0	0.50	10		06/28/15 01:37	14797-55-8	
Sulfate	**383**	mg/L	12.0	6.0	10		06/28/15 01:37	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.049**	mg/L	0.040	0.020	1		07/07/15 11:33	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.70**	mg/L	0.025	0.0087	5		06/27/15 15:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 505604 **Lab ID: 10312267002** Collected: 06/26/15 09:30 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	**0.71**	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 08:55	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 18:41	7440-43-9	
Potassium	**55.8**	mg/L	12.5	0.63	5	06/30/15 12:26	07/01/15 10:08	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.0092**	mg/L	0.00050	0.00011	1	07/02/15 14:33	07/07/15 12:32	7440-38-2	
Selenium	**0.015**	mg/L	0.00050	0.00020	1	07/02/15 14:33	07/07/15 12:32	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**480**	mg/L	12.0	6.0	10		06/28/15 01:55	16887-00-6	
Fluoride	**0.20**	mg/L	0.050	0.0036	1		06/27/15 15:12	16984-48-8	
Nitrate as N	**19.3**	mg/L	1.0	0.50	10		06/28/15 01:55	14797-55-8	
Sulfate	**381**	mg/L	12.0	6.0	10		06/28/15 01:55	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		07/07/15 11:34	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.64**	mg/L	0.025	0.0087	5		06/27/15 15:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 505108A(ABC) **Lab ID: 10312267003** Collected: 06/26/15 10:05 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	**0.50**	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 08:58	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 18:45	7440-43-9	
Potassium	**123**	mg/L	12.5	0.63	5	06/30/15 12:26	07/01/15 10:11	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	**0.018**	mg/L	0.00050	0.00011	1	07/06/15 05:36	07/07/15 08:58	7440-38-2	
Selenium	**0.015**	mg/L	0.00050	0.00020	1	07/06/15 05:36	07/07/15 08:58	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	**424**	mg/L	12.0	6.0	10		06/28/15 02:12	16887-00-6	M6
Fluoride	**0.52**	mg/L	0.050	0.0036	1		06/27/15 15:28	16984-48-8	M1
Nitrate as N	**17.8**	mg/L	1.0	0.50	10		06/28/15 02:12	14797-55-8	M6
Sulfate	**350**	mg/L	12.0	6.0	10		06/28/15 02:12	14808-79-8	M6
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.020J**	mg/L	0.040	0.020	1		07/07/15 11:34	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	**0.44**	mg/L	0.025	0.0087	5		06/27/15 15:13		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Sample: 5051704 **Lab ID: 10312267006** Collected: 06/26/15 10:30 Received: 06/27/15 09:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3010								
Phosphorus	ND	mg/L	0.10	0.013	1	07/08/15 09:59	07/09/15 09:14	7723-14-0	
Cadmium	ND	mg/L	0.0030	0.00065	1	06/30/15 12:26	06/30/15 19:00	7440-43-9	
Potassium	ND	mg/L	2.5	0.13	1	06/30/15 12:26	06/30/15 19:00	7440-09-7	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Arsenic	ND	mg/L	0.00050	0.00011	1	07/06/15 05:36	07/07/15 09:17	7440-38-2	
Selenium	ND	mg/L	0.00050	0.00020	1	07/06/15 05:36	07/07/15 09:17	7782-49-2	
300.0 IC Anions	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.2	0.60	1		06/27/15 16:43	16887-00-6	
Fluoride	**0.0070J**	mg/L	0.050	0.0036	1		06/27/15 16:43	16984-48-8	
Nitrate as N	ND	mg/L	0.10	0.050	1		06/27/15 16:43	14797-55-8	
Sulfate	ND	mg/L	1.2	0.60	1		06/27/15 16:43	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.040	0.020	1		07/07/15 11:38	7664-41-7	
Phosphate, Ortho Low Level	Analytical Method: SM 4500-P E								
Orthophosphate as P	ND	mg/L	0.0050	0.0017	1		06/27/15 15:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

QC Batch: MPRP/5532 Analysis Method: EPA 6010C
QC Batch Method: EPA 3010 Analysis Description: 6010C MET
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

METHOD BLANK: 226008 Matrix: Water
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.10	07/09/15 08:49	

LABORATORY CONTROL SAMPLE: 226009

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	5	5.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 226010 226011

Parameter	Units	10312267003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	0.50	5	5	5.8	5.8	106	106	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

QC Batch: MPRP/55677 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

METHOD BLANK: 2010445 Matrix: Water
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	mg/L	ND	0.0030	06/30/15 18:23	
Potassium	mg/L	ND	2.5	06/30/15 18:23	

LABORATORY CONTROL SAMPLE: 2010446

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/L	1	0.96	96	86-108	
Potassium	mg/L	10	9.1	91	85-108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2010593 2010594

Parameter	Units	10312267003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	1	1	0.98	0.97	98	97	83-112	1	20	
Potassium	mg/L	123	10	10	133	134	105	109	82-118	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

QC Batch: MPRP/55767 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10312267001, 10312267002

METHOD BLANK: 2012882 Matrix: Water
Associated Lab Samples: 10312267001, 10312267002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	07/07/15 11:02	
Selenium	mg/L	ND	0.00050	07/07/15 11:02	

LABORATORY CONTROL SAMPLE: 2012883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.08	0.083	103	92-110	
Selenium	mg/L	.08	0.083	104	93-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2012884 2012885

Parameter	Units	10312267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0092	.08	.08	0.094	0.094	106	107	89-114	0	20	
Selenium	mg/L	0.015	.08	.08	0.097	0.096	103	102	85-117	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
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QUALITY CONTROL DATA

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

QC Batch: MPRP/55768 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 10312267003, 10312267006

METHOD BLANK: 2012886 Matrix: Water
Associated Lab Samples: 10312267003, 10312267006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.00050	07/07/15 08:41	
Selenium	mg/L	ND	0.00050	07/07/15 08:41	

LABORATORY CONTROL SAMPLE: 2012887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.08	0.085	106	92-110	
Selenium	mg/L	.08	0.085	106	93-112	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2012888 2012889

Parameter	Units	10312267003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.018	.08	.08	0.10	0.10	107	108	89-114	0	20	
Selenium	mg/L	0.015	.08	.08	0.10	0.10	107	107	85-117	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
150 N Ninth Street
Billings, MT 59101
(406)254-7226

QUALITY CONTROL DATA

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

QC Batch: WETA/23586 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

METHOD BLANK: 2008730 Matrix: Water
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.2	06/27/15 14:27	
Fluoride	mg/L	ND	0.050	06/27/15 14:27	
Nitrate as N	mg/L	ND	0.10	06/27/15 14:27	
Sulfate	mg/L	ND	1.2	06/27/15 14:27	

LABORATORY CONTROL SAMPLE: 2008731

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	12.5	12.5	100	90-110	
Fluoride	mg/L	1	1.0	102	90-110	
Nitrate as N	mg/L	1	0.95	95	90-110	
Sulfate	mg/L	12.5	12.2	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2008732 2008733

Parameter	Units	10312267003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	424	12.5	12.5	380	382	-354	-337	90-110	1	20	M6
Fluoride	mg/L	0.52	1	1	0.90	1.0	37	49	90-110	12	20	M1
Nitrate as N	mg/L	17.8	1	1	16.7	16.8	-109	-102	90-110	0	20	M6
Sulfate	mg/L	350	12.5	12.5	320	321	-237	-225	90-110	0	20	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2008734 2008735

Parameter	Units	10312024001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.9	12.5	12.5	16.2	16.2	98	98	90-110	0	20	
Fluoride	mg/L	0.15	1	1	1.1	1.1	98	98	90-110	0	20	
Nitrate as N	mg/L	<0.050	1	1	0.96	0.97	94	94	90-110	0	20	
Sulfate	mg/L	<0.60	12.5	12.5	12.5	12.5	95	95	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

QC Batch: WETA/23696 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

METHOD BLANK: 2014991 Matrix: Water
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.040	07/07/15 11:31	

LABORATORY CONTROL SAMPLE: 2014992

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2014993 2014994

Parameter	Units	10312267003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.020J	1	1	1.0	1.1	103	106	90-110	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2014995 2014996

Parameter	Units	10311780005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.062	1	1	1.1	1.1	104	107	90-110	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

QC Batch: WETA/23588 Analysis Method: SM 4500-P E
QC Batch Method: SM 4500-P E Analysis Description: SM4500P-E, Phosphate, Ortho
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

METHOD BLANK: 2008762 Matrix: Water
Associated Lab Samples: 10312267001, 10312267002, 10312267003, 10312267006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.0050	06/27/15 14:46	

LABORATORY CONTROL SAMPLE: 2008763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	.1	0.097	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2008764 2008765

Parameter	Units	10312261010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	0.072	.1	.1	0.18	0.18	104	104	80-120	0	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2009262 2009263

Parameter	Units	10312267003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	0.44	.1	.1	0.54	0.54	104	104	80-120	0	30	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis
PASI-V	Pace Analytical Services - Virginia

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RCRA-CERLCA-CALCINER-REV
Pace Project No.: 10312267

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10312267001	**505121A**	EPA 3010	MPRP/5532	EPA 6010C	ICP/4380
10312267001	**505121A**	EPA 3010	MPRP/55677	EPA 6010	ICP/24392
10312267002	**505604**	EPA 3010	MPRP/5532	EPA 6010C	ICP/4380
10312267002	**505604**	EPA 3010	MPRP/55677	EPA 6010	ICP/24392
10312267003	**505108A(ABC)**	EPA 3010	MPRP/5532	EPA 6010C	ICP/4380
10312267003	**505108A(ABC)**	EPA 3010	MPRP/55677	EPA 6010	ICP/24392
10312267006	**5051704**	EPA 3010	MPRP/5532	EPA 6010C	ICP/4380
10312267006	**5051704**	EPA 3010	MPRP/55677	EPA 6010	ICP/24392
10312267001	**505121A**	EPA 3020	MPRP/55767	EPA 6020	ICPM/25214
10312267002	**505604**	EPA 3020	MPRP/55767	EPA 6020	ICPM/25214
10312267003	**505108A(ABC)**	EPA 3020	MPRP/55768	EPA 6020	ICPM/25213
10312267006	**5051704**	EPA 3020	MPRP/55768	EPA 6020	ICPM/25213
10312267001	**505121A**	EPA 300.0	WETA/23586		
10312267002	**505604**	EPA 300.0	WETA/23586		
10312267003	**505108A(ABC)**	EPA 300.0	WETA/23586		
10312267006	**5051704**	EPA 300.0	WETA/23586		
10312267001	**505121A**	EPA 350.1	WETA/23696		
10312267002	**505604**	EPA 350.1	WETA/23696		
10312267003	**505108A(ABC)**	EPA 350.1	WETA/23696		
10312267006	**5051704**	EPA 350.1	WETA/23696		
10312267001	**505121A**	SM 4500-P E	WETA/23588		
10312267002	**505604**	SM 4500-P E	WETA/23588		
10312267003	**505108A(ABC)**	SM 4500-P E	WETA/23588		
10312267006	**5051704**	SM 4500-P E	WETA/23588		